Influence of specialist title on perceived surgical ability

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ML Kreidstein, HG Thomson, PC Neligan. Influence of specialist title on perceived surgical ability. *Can J Plast Surg* 1994;2(4):149-154. This study was conducted to test the hypothesis that patients associate specialist titles with superior surgical ability, and that operative results are viewed more favorably if believed to be the handiwork of a specialist. Subjects (n=130) were randomly selected from among patients at a medical walk-in clinic. All subjects were presented with an identical set of 'before and after' photographs depicting six unrelated facial operations. However, each set of photographs was attributed at random to one of the following surgeons: plastic surgeon, plastic surgery resident, aesthetic plastic surgeon, facial plastic surgeon, ear nose and throat/ head and neck surgeon, cosmetic surgeon. Subjects completed a questionnaire evaluating the quality of the result from each operation, and then for each operation indicated which of the above surgeons was likely to achieve the best operative result. The attribution of identical operative results to the different surgeons resulted in evaluations that were not statistically different ($P>0.05$). Cosmetic surgeons were chosen most frequently as the type of surgeon likely to perform the best quality rhytidectomy or rhinoplasty, and facial plastic surgeons were chosen most frequently as best for repairs of facial lacerations or removal of skin tumours on the face ($P<0.001$). Plastic surgeons and ear nose and throat surgeons received intermediate ratings, and aesthetic plastic surgeons and plastic surgery residents received low ratings. As hypothesized, specialist titles were associated with superior surgical ability, with cosmetic surgeons thought to provide the best cosmetic procedures, and facial plastic surgeons thought to provide the best reconstructive procedures. Despite this bias, evaluations of the operative results were not influenced by the type of surgeon credited with the operation, refuting the hypothesis of a placebo-type effect.

Key Words: *Cosmetic surgery, Perception, Specialist*

Influence du titre d'un spécialiste sur la perception de sa capacité de chirurgien

RÉSUMÉ : Cette étude a été menée pour vérifier l'hypothèse selon laquelle les patients associent le titre des spécialistes avec un certain degré de compétence et les résultats de l'opération sont perçus plus favorablement s'ils estiment qu'elle a été pratiquée par tel type de spécialiste plutôt que par un autre. Les sujets (n=130) ont été sélectionnés au hasard parmi des patients d'une clinique médicale ambulatoire. Tous les sujets ont eu le loisir d'examiner la même série de photographies «avant et après» dépeignant six chirurgies faciales distinctes. Toutefois, chaque série de photographies a été attribuée au hasard à l'un des types de spécialités suivants : chirurgie plastique, résidence en chirurgie plastique, chirurgie esthétique, chirurgie plastique du visage, chirurgie otorhinolaryngologique et chirurgie cosmétique. Les sujets ont répondu à un questionnaire, qui évaluait la qualité des résultats de chacune des opérations, puis, pour chaque opération, indiquaient laquelle des spécialités sus-nommées était susceptible de mieux réussir l'opération. L'attribution de résultats opératoires identiques aux différents types de chirurgiens a donné lieu à des évaluations qui n'étaient pas statistiquement différentes ($P>0,05$). La chirurgie cosmétique a été choisie le plus fréquemment en tant que type de spécialité susceptible d'accomplir les rhytidectomies et les rhinoplasties les mieux réussies et la chirurgie plastique du visage a été choisie le plus fréquemment pour la réparation de lacérations au visage ou l'excision de tumeurs cutanées du visage les mieux réussies ($P<0,001$). Les chirurgiens plasticiens et les chirurgiens otorhinolaryngologistes ont reçu des évaluations intermédiaires, et les chirurgiens esthéticiens et les résidents en chirurgie plastique ont reçu des évaluations plutôt faibles. Selon l'hypothèse, les titres des spécialistes ont été associés à une plus grande compétence, les chirurgiens cosméticiens étant estimés capables de fournir les meilleures interventions cosmétiques et les chirurgiens en plastie faciale ayant été jugés aptes à procéder aux meilleures interventions de reconstruction. Malgré ce biais, les évaluations des résultats opératoires n'ont pas été influencés par le type de chirurgiens à qui la chirurgie était attribuée, ce qui réfute l'hypothèse de l'effet de type placebo.

The broad scope and appeal of facial surgery has attracted the attention of surgical practitioners from a variety of training backgrounds. Patients desiring facial surgery may choose a surgeon from a traditional specialty with rigorous criteria for certification, such as a plastic surgeon or an

otolaryngologist. Alternatively, they may opt for a purported 'subspecialist' such as a cosmetic surgeon, aesthetic plastic surgeon or facial plastic surgeon. For many patients, these subspecialist titles and the accompanying certificates adorning the surgeon's office imply surgical expertise, even though they may be adopted by surgical practitioners without specialized training or qualifications. The hypothesis of this study was that patients believe that surgeons with these subspecialist titles are more skilled. Furthermore, it was hypothesized that a placebo effect exists, such that operative

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The accompanying 'before and after' photographs represent operations performed by a Plastic Surgery Resident. Please answer the questions on this page before turning to the second page of this questionnaire.

1. Enter a numerical score (eg, Operation 1: 78) for your opinion of the result of each operation, where:

< 50	unacceptable
51-60	barely acceptable
61-70	acceptable
71-80	good
81-90	very good
91-100	excellent

Operation 1: _____

Operation 2: _____

Operation 3: _____

Operation 4: _____

Operation 5: _____

Operation 6: _____

2. The surgical problems depicted in these photographs are treated by a variety of doctors, including:

- a. Ear, Nose, and Throat/Head and Neck Surgeons
- b. Cosmetic Surgeons
- c. Plastic Surgeons
- d. Plastic Surgery Residents (hospital-based trainees)
- e. Aesthetic Plastic Surgeons
- f. Facial Plastic Surgeons

For each of the operations (1-6), indicate which surgeon (a-f) is likely to do the best job:

Operation 1: _____

Operation 2: _____

Operation 3: _____

Operation 4: _____

Operation 5: _____

Operation 6: _____

Figure 1 Questionnaire presented to subjects of experiment in which 'before and after' photographs were attributed to a plastic surgery resident

results are viewed more favourably if they are believed to be the handiwork of a subspecialist.

METHODS

Source of subjects

The questionnaire was completed by 130 people randomly selected from among patients attending a medical walk-in clinic. The clinic is situated in a large downtown retail office complex.

Data collection

Subjects were presented a questionnaire (Figure 1) by the first author under the guise of a medical doctor researching patient attitudes to surgery.

Subspecialist title and evaluation of operative results

All subjects were presented with an identical set of 'before and after' photographs depicting six unrelated facial operations (two trauma reconstruction, two tumour reconstruction, two cosmetic) (Figure 2). For each subject, the set of six pairs of photographs was attributed at random to one of the following surgeons: (a) plastic surgeon, (b) plastic surgery resident,

(c) aesthetic plastic surgeon, (d) facial plastic surgeon, (e) ear nose and throat/head and neck surgeon, or (f) cosmetic surgeon. Subjects completed the first question of the questionnaire (Figure 1), an evaluation of the quality of the result from each operation.

Subspecialist titles and perceived surgical ability

Subjects were asked in the second question of the questionnaire to indicate, for each of the six operations, which of the six types of surgeon was likely to achieve the best operative result (Figure 1)

RESULTS

Subject data

Of the 130 patients approached for participation in this study, 107 completed the questionnaire (82% participation). Dropout was primarily due to interruption when a patient was called away for their appointment.

Participants were composed of 36 men and 71 women, and the median age of participants was 31 years (range 20 to 72). The language spoken at home for 91% was English, and the median number of years of post-secondary school education was three (range 0 to 10). Seventeen of the participants had undergone surgery by one of the six surgeon groups (16%), and for these participants the surgery was a success in 76%.

Subspecialist titles and evaluation of operative results

The attribution of identical photographs of operative results to the different surgeon groups resulted in mean overall evaluations for the surgeon groups that were not statistically different ($P > 0.05$, one-way ANOVA). Stratification of evaluations for individual operations similarly resulted in non-significant differences between the surgeon groups ($P > 0.05$, one-way ANOVA) (Figure 3).

Subspecialist titles and perceived surgical ability

Cosmetic surgeons were chosen most frequently (chi-square, $P < 0.001$) as the type of surgeon likely to perform the best quality rhytidectomy (mean $\pm$ 95% confidence interval $57 \pm 9.0\%$) or rhinoplasty ($50 \pm 9.4\%$), and facial plastic surgeons were chosen most frequently as best for repairs of facial lacerations (dog bite $55 \pm 9.3\%$; lip $52 \pm 9.5\%$) or removal of skin tumours on the face (eyelid: $47 \pm 9.7\%$; nose $34 \pm 9.0\%$). Plastic surgeons and ear nose and throat surgeons received intermediate ratings, and aesthetic plastic surgeons and plastic surgery residents received low ratings (Figure 4).

DISCUSSION

As hypothesized, subspecialist titles were associated with superior surgical ability, with cosmetic surgeons thought to provide the best cosmetic procedures, and facial plastic surgeons thought to provide the best reconstructive procedures. Despite this bias, evaluations of the operative results were not influenced by the type of surgeon credited with the operation, refuting the hypothesis of a placebo-type effect.

The findings of this study have implications both for the specialty of plastic surgery and for the individual practitioner

Figure 2) The panel of 'before and after' photographs presented to the subjects of the experiment was described as follows: (a) repair of dog bite, (b) face-lift, (c) eyelid skin cancer, (d) rhinoplasty, (e) nasal skin cancer, (f) repair of lip.

A

D

B

E

C

F

Figure 3) Evaluations of operative results attributed to different surgeon groups: (a) repair of dog bite, (b) face-lift, (c) eyelid skin cancer, (d) rhinoplasty, (e) nasal skin cancer, (f) repair of lip

A

D

B

E

C

F

Figure 4 Surgeon selected as likely to do the best job: (a) repair of dog bite, (b) face-lift, (c) eyelid skin cancer, (d) rhinoplasty, (e) nasal skin cancer, (f) repair of lip.

marketing a practice. Much recent debate has centred on whether 'plastic surgeon', 'plastic and reconstructive surgeon' or some other title is most appropriate. A more acrimonious debate has sought to determine who can assume the title 'plastic surgeon' and who can indicate that they perform 'plastic surgery'. This study indicates that the public perceives all specialist-sounding titles as carrying equal credibility, with the best surgeon being one whose title most closely reflects the surgical problem. Repeating this study testing titles such as 'rhinoplastic surgeon' or 'eyelid cancer surgeon' would further confirm this hypothesis. As a result, choosing a title which fairly describes the breadth and depth of one's training may not optimally position one's practice for competition in the surgical marketplace.

The lack of an observed placebo-effect deserves some

comment. Anecdotally, patients are often more satisfied with their surgery, particularly an untoward result, if they believe it was performed by the attending surgeon and not a resident. This study suggests that attribution of the surgery to the attending surgeon may not result in the patient perceiving the outcome more favourably. Rather, the patient may be more satisfied with a poor result in the belief that they received the best care available. Other components of the patient-physician interaction which may influence a patient's perception of the quality of their surgery were not assessed in this study.

In summary, this study revealed a bias favouring subspecialist titles. Further study in this area may assist in the marketing of plastic surgeons, and provide insight into the factors which influence patient satisfaction with the care and treatment they receive.