

Interest in Facial Plastic and Reconstructive Surgery Among Otorhinolaryngologists

A Survey in the Netherlands

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Objective: To assess the interest of Dutch otorhinolaryngologists in facial plastic and reconstructive surgery (FPRS).

Methods: We conducted a 22-question survey among otorhinolaryngology physicians and residents concerning their experience with and interest in FPRS. The response rate was 71% (335/475; 275 physicians and 60 residents).

Results: Most respondents associated FPRS with rhinoplasty, otoplasty, and the reconstruction of skin cancer defects. Of the physicians, 81% said that 1% to 33% of their practice involves FPRS; 62% were satisfied with this percentage, whereas 36% would like it to be higher. Ap-

proximately 70% of physicians regarded their training in FPRS as insufficient, although most (70%) had taken supplementary courses. Moreover, 73% of the otorhinolaryngology physicians and 72% of all respondents said that FPRS should be taught during and after residency, with a preference for hands-on courses. Finally, 84% of all respondents thought that FPRS should be part of the field of otorhinolaryngology, whereas 48% thought that it should become a subspecialty.

Conclusion: There is interest in integrating FPRS training into the Dutch otorhinolaryngology residency program, as it is in the United States.

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IN THE FIELD OF OTORHINOLARYNGOLOGY (ORL), interest in facial plastic and reconstructive surgery (FPRS) has been increasing in the United States, in particular since 1964, when the American Academy of Facial Plastic and Reconstructive Surgery was founded, and in Europe since 1977 with the foundation of the European Academy of Facial Plastic Surgery (EAFPS), previously known as the Joseph Society. Besides offering a "certification of quality,"

Interest in FPRS has also been growing in Europe in recent years, as evidenced by the number of fellowships granted by the EAFPS. This trend is paralleled in the Netherlands, where young ORL physicians in particular express increasing interest in FPRS. The aim of the present study is to quantify this interest to assess whether it might be beneficial to include FPRS in the ORL residency program.

METHODS

A questionnaire was mailed in the spring of 2003 to 475 members of the Dutch ORL association (392 ORL physicians [83%] and 83 ORL residents [17%]). The 22 questions concerned their experience with and interest in FPRS. The first part of the questionnaire dealt with the respondent's work history. For example, it asked about the number of years of experience as an ORL physician, the type of appointment, and the focal area of the respondent's practice. This was followed by a series of questions on current activity in FPRS, asking, among other things, about the share of this type of surgery in the current practice and the number and kind of cosmetic and reconstructive operations performed. A few questions were also asked about exposure to and experience with FPRS during residency, about any

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both bodies were founded to provide support and training to all individuals interested in the field of FPRS. In the United States and Canada, this interest has resulted in (1) more attention to and training in FPRS during the ORL residency, (2) a certified fellowship for FPRS, and (3) a new subspecialty within the field of ORL.^{1,2} Since then, the number of FPRS operations performed by an ORL physician or resident has risen sharply in these 2 countries, and so has the quality of teaching and research in this subspecialty.

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supplementary training since then, and about the attitude toward FPRS regarding future education and training in the Netherlands. Finally, the respondent was asked for an opinion on the desirability of a certified subspecialty for FPRS within the field of ORL. At the end of the questionnaire there was an area for comments and criticisms.

RESULTS

We analyzed the answers to the 335 questionnaires (71% that were returned and described the results under 4 headings: the respondent's (1) work setting, (2) share of FPRS in the current practice, (3) education and training in FPRS, and (4) attitude toward the future of FPRS within the field of ORL. The respondents were divided into groups on the basis of their experience and type of appointment. In terms of experience, 18% (60/335) were residents, 19% (65/335) had 0 to 5 years of experience, 26% (86/335) had more than 5 to 15 years of experience, and 37% (124/335) had more than 15 years of experience. In terms of type of appointment, 33% (111/335) worked in an academic setting, 5% (16/335) worked partly in an academic setting, and 62% (208/335) worked in a general hospital (ie, a peripheral setting) (**Figure 1**). In 9 cases, a private clinic was classified as peripheral, and in 5 cases, a dedicated center such as The Netherlands Cancer Institute/Antoni van Leeuwenhoek Hospital (Amsterdam) was classified as an academic setting. All of the residents were considered to be working in an academic setting, but they were excluded from the analysis, except for the questions on FPRS within ORL practice in the future. The percentages reported herein have been rounded off.

WORK SETTING OF THE RESPONDENTS

After dividing the respondents into groups on the basis of experience and type of appointment (Figure 1), we compared these groups, looking for significant differences. All of the ORL physicians working in an academic setting had in their immediate surroundings not only a plastic surgeon but also an ophthalmologist, a dermatologist, a head and neck surgeon, and a maxillofacial surgeon. However, the professional embedding was not complete for respondents working in general practice (the periphery); there, 75% had direct access to a plastic surgeon, 97% to an ophthalmologist, 100% to a dermatologist, 42% to a head and neck surgeon, and 88% to a maxillofacial surgeon.

When asked about their main focal area of practice, 77% (213/275) of the respondents said that it was general ORL. In addition, 25% (69/275) mentioned otology, 13% (37/275) FPRS, 13% (36/275) head and neck surgery, 9% (25/275) pediatric ORL, and 8% (22/275) allergy; 14% (38/275) said that a major part of their daily work was in "other" areas (eg, rhinology and phoniatics/laryngology).

SHARE OF FPRS IN CURRENT PRACTICE

As part of their daily practice, 24% of the respondents regularly performed FPRS themselves, 62% did so from time to time, and 14% did not. For 48% of the respondents, this involved cosmetic and reconstructive facial surgery, for 25% only cosmetic surgery was involved, and for 13% only re-

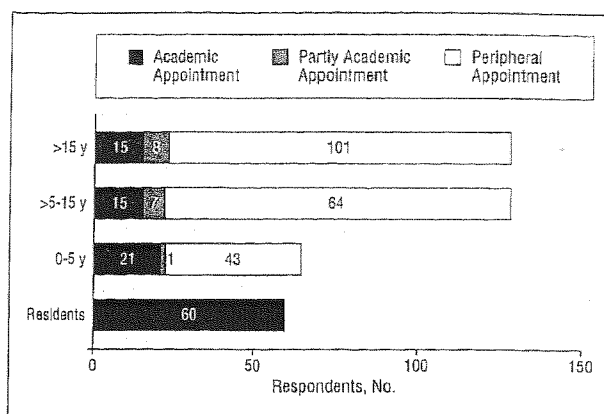


Figure 1. Number of years working as an otorhinolaryngology physician by type of appointment.

constructive surgery was involved. Some respondents determined that FPRS was indicated but then referred the patient to a colleague ORL physician or a plastic surgeon.

Typical cosmetic operations that were performed frequently include rhinoplasty (63%) and otoplasty (51%). Besides these, a few respondents also mentioned eyelid surgery (5%), eyebrow repositioning (3%), face-lifts (1%), and "other" (eg, chin augmentation and laser treatment of the skin, accounting for 8% of the total). For these questions, the number of years of experience makes no difference, but the type of appointment sometimes does. For example, of the ORL physicians working in an academic setting, 40% performed rhinoplasties, whereas 69% of the ORL physicians working in a general hospital performed such operations. A similar distinction could be made regarding otoplasties (**Table 1**). In some instances, there was a great difference in the number of operations performed per respondent. Some performed more than 100 rhinoplasties per year, and others performed this operation only 5 to 10 times a year.

Typical reconstructive operations that were performed frequently include nasal reconstruction (eg, reconstruction of a saddle nose) (43%) and the reconstruction of skin cancer defects (27%). Also, a considerable proportion of the ORL physicians either had performed large transposition flap reconstructions (eg, myocutaneous pectoralis major flap) and free flap reconstructions (eg, radial forearm free flap) or had some experience with these operations (12% and 8%, respectively). Here, too, the number of reconstructive operations varied per year from a few to a few dozen. Furthermore, "other" types of reconstruction (7%) were mentioned, for example, reconstructive surgery after paralysis of the facial nerve, cleft palate, and trauma. Compared with the cosmetic operations, reconstructive surgery generally seemed to be more common in an academic setting (**Table 2**).

For most ORL physicians (81%), the total share of FPRS in daily practice was 1% to 33%; for 3%, the share was greater than 33% to 66%; and for 1%, the share was greater than 66% (**Figure 2**). With respect to referrals for FPRS, most cosmetic indications were referred by general practitioners. However, colleague ORL physicians and plastic surgeons were also responsible for a share of the referrals. For reconstructive operations, the referrals were

Table 1. Types of Cosmetic Operations Performed by Type of Appointment

| Type of Cosmetic Operation | Appointment, No. (%) | | | Total (N = 275) |
|----------------------------|----------------------|--------------------------|----------------------|-----------------|
| | Academic (n = 51) | Partly Academic (n = 16) | Peripheral (n = 208) | |
| Rhinoplasty | 22 (43) | 7 (44) | 144 (69) | 173 (63) |
| Eyelid surgery | 4 (8) | 1 (6) | 8 (4) | 13 (5) |
| Eyebrow lift | 3 (6) | 1 (6) | 4 (2) | 8 (3) |
| Otoplasty | 17 (33) | 6 (4) | 116 (56) | 139 (51) |
| Face-lift | 2 (4) | 0 | 2 (1) | 4 (1) |
| Other* | 3 (6) | 3 (19) | 16 (8) | 23 (8) |

*Includes chin augmentation, carbon dioxide laser treatment of the skin, and scar correction.

Table 2. Types of Reconstructive Operations Performed by Type of Appointment

| Type of Reconstructive Operation | Appointment, No. (%) | | | Total (N = 275) |
|--|----------------------|--------------------------|----------------------|-----------------|
| | Academic (n = 51) | Partly Academic (n = 16) | Peripheral (n = 208) | |
| Free flap | 17 (33) | 3 (19) | 1 (<1) | 21 (8) |
| Large regional transposition flap | 24 (47) | 4 (25) | 6 (3) | 34 (12) |
| Reconstruction of defect after excision of skin cancer | 26 (51) | 7 (44) | 41 (20) | 74 (27) |
| Reconstruction of nose | 18 (35) | 7 (44) | 93 (45) | 118 (43) |
| Eyelid surgery | 5 (10) | 0 | 7 (3) | 12 (4) |
| Other* | 6 (12) | 2 (13) | 11 (5) | 19 (7) |

*Includes reconstructive surgery after paralysis of the facial nerve, cleft palate, and trauma.

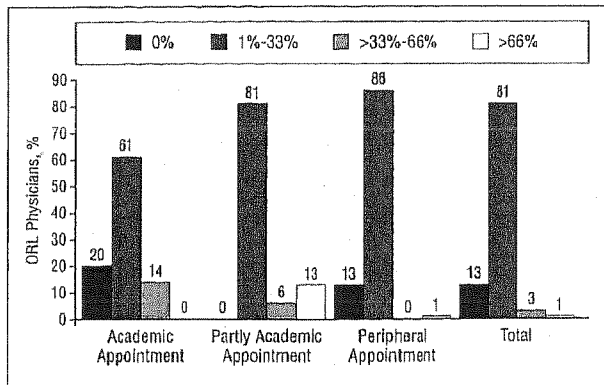


Figure 2. When asked about the share of facial and plastic reconstructive surgery in their daily practice, 81% of the otorhinolaryngology (ORL) physicians indicated that it was 1% to 33%.

made most frequently by general practitioners, colleague ORL physicians, and dermatologists.

EDUCATION AND TRAINING IN FPRS

Forty-one percent of the respondents indicated that they had not been trained in FPRS during their residency (**Figure 3**). Only 13% believed that their FPRS training during residency in ORL had been sufficient, whereas 44% considered themselves trained in this area but believed that the training was insufficient (2% did not know). The percentage of ORL physicians who indicated that they had been adequately trained was higher in groups with fewer years of experience as an ORL physician, suggesting increased exposure to FPRS in the residency program during the past decade. Although 70% of ORL physicians had taken a supplementary course in cosmetic or

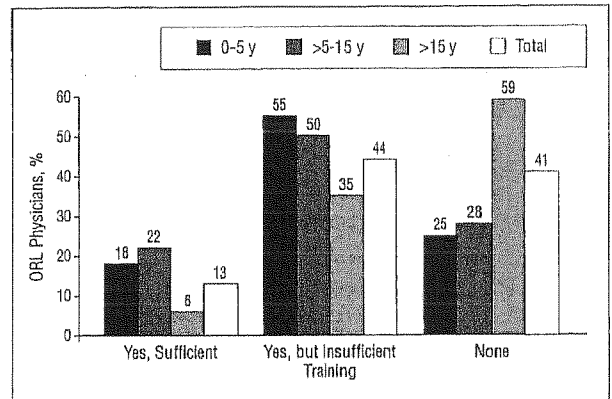


Figure 3. Answers to the question about the extent of training in facial and plastic reconstructive surgery during the otorhinolaryngology (ORL) residency program by work experience. Compared with ORL physicians with more than 15 years of work experience, those with 0 to 5 years of work experience believe that their training is better but still insufficient.

reconstructive facial surgery, 70% considered this insufficient. The most frequently cited courses were those given at the Academic Medical Center, Amsterdam, and the University Medical Center, Utrecht, on nasal surgery and the course "Around the Nose" given at the University Medical Center, Nijmegen. A few ORL physicians had taken supplementary training courses in otoplastic techniques. Others had been full-time fellows in FPRS just after residency for a minimum of 6 months. Regarding the most suitable time for training in FPRS, 8% believed that this was during residency, 18% after residency, and 72% during and after residency. There was a preference for a "hands-on" method; differences were not great when answers related to years of experience as an ORL physician.

Table 3. Perceived Share of FPRS in Daily Practice by Number of Years Working as an ORL Physician

| Perceived Share of FPRS | Experience as an ORL Physician, y | | | Total (N = 275) |
|-------------------------|-----------------------------------|----------------|---------------|-----------------|
| | 0-5 (n = 65) | >5-15 (n = 86) | >15 (n = 124) | |
| Insufficient | 33 (51) | 32 (37) | 34 (27) | 99 (36) |
| Satisfactory | 30 (46) | 53 (62) | 88 (71) | 171 (62) |
| Excessive | 0 | 1 (1) | 0 | 1 (<1) |
| Unknown | 2 (3) | 0 | 2 (2) | 4 (1) |

Abbreviations: FPRS, facial plastic and reconstructive surgery; ORL, otorhinolaryngology.

Table 4. Ideal Share of FPRS in Daily Practice Relative to the Number of Years Working as an ORL Physician

| Share of FPRS, % | Experience as an ORL Physician, y | | | | Total (N = 335) |
|------------------|-----------------------------------|--------------|----------------|---------------|-----------------|
| | Resident (n = 60) | 0-5 (n = 65) | >5-15 (n = 86) | >15 (n = 124) | |
| 0 | 2 (3) | 3 (5) | 5 (6) | 15 (12) | 25 (7) |
| 1-33 | 45 (75) | 48 (74) | 71 (83) | 95 (77) | 259 (77) |
| >33-66 | 9 (15) | 9 (14) | 9 (10) | 7 (6) | 34 (10) |
| >66 | 0 | 2 (3) | 1 (1) | 4 (3) | 7 (2) |
| Unknown | 4 (7) | 3 (5) | 0 | 3 (2) | 10 (3) |

Abbreviations: FPRS, facial plastic and reconstructive surgery; ORL, otorhinolaryngology.

ATTITUDE TOWARD FPRS IN THE FUTURE

Regarding the perception of the share of FPRS in daily practice, 62% considered this share to be satisfactory, and 36% believed that it was insufficient (**Table 3**). Approximately 2% had no opinion or had not fully completed the questionnaire. Their opinions proved to be closely related to the stage in their career: the younger the ORL physicians were, the more they described the share of FPRS as insufficient. The percentage of FPRS that the daily practice would ideally compose was zero for 7% of all respondents (ORL physicians and residents), whereas 77% believed that FPRS should compose up to one third of their practice, and 10% put the ideal level between one third and two thirds (**Table 4**). The differences among the groups were minimal on that point, even when the residents were included. Of all respondents, 84% believed that cosmetic and reconstructive facial surgery should be officially recognized as part of ORL practice; among the residents, the share was even higher (92%) (**Figure 4**). When asked whether FPRS should be made into a subspecialty (ie, recognized by the Dutch Medical Registration Board as an official focal area for practice within ORL), 48% said "yes" and 49% said "no" (3% said they did not know) (**Figure 5**). The share of "yes" answers was 53% among residents.

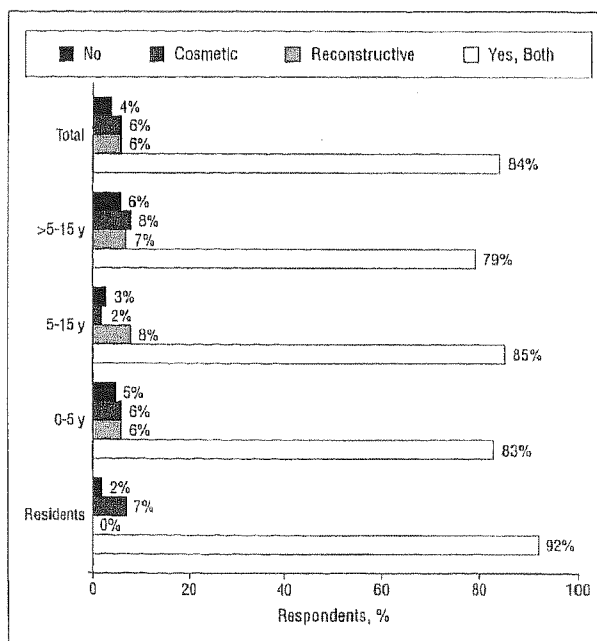


Figure 4. When asked whether facial and plastic reconstructive surgery should be part of otorhinolaryngology practice, 84% of all respondents answered "yes," as did 92% of residents.

COMMENT

Change in the field of ORL practice has been considerable during the past 25 years as a result of growing expertise in specialized subareas. The palette of treatment options has changed drastically, whereby nasal surgery, head and neck oncology and surgery, and endoscopic nasal sinus surgery have changed the face of the field, resulting in unmistakable improvement in the quality of patient care.

The developments in the field of FPRS described in this article also reflect this new image. Whereas previously the plastic surgeon was the specialist with the strongest profile in this subarea, during the past few decades there has been a definite increase in the number of patient contacts for FPRS among ORL physicians, maxillofacial surgeons, ophthalmologists, and dermatologists. The ORL physician in particular has been increasingly involved in FPRS in recent years. For reconstruction of soft tissues after ab-

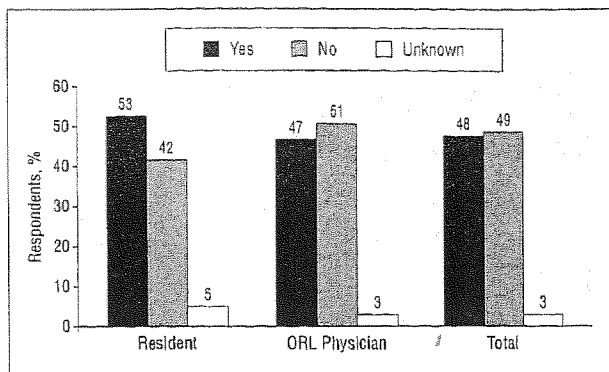


Figure 5. When asked whether facial and plastic reconstructive surgery should become a subspecialization within otorhinolaryngology (ORL) practice, 48% of all respondents answered "yes," as did 53% of residents.

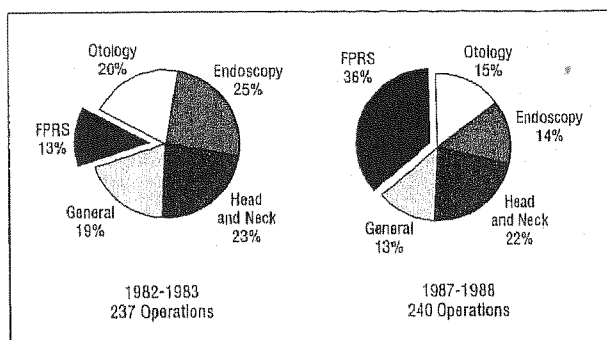


Figure 6. Operations by subarea of otorhinolaryngology practice at an institute in the United States as reported and performed by residents. After appointing a full-time staff member for facial and plastic reconstructive surgery (FPRS), the share of FPRS operations rose sharply compared with other otorhinolaryngology operations. Reprinted with permission from Thomas and Graboyes.²

lative cancer surgery in the head and neck region, for surgical rehabilitation after paralysis of the facial nerve, and for the reconstruction of facial defects after excision of a skin tumor, ORL physicians often play a key role because of their specific knowledge and understanding of the anatomy of the head and neck region. At the same time, the ORL physician increasingly performs operations that are more cosmetic, such as external rhinoplasties, eyelid surgery, and even face-lifts.

The same developments that occurred more than 20 years ago in the United States and Canada seem to be taking place now in Europe. It is telling that a survey using a questionnaire similar to ours had already been conducted in North America in 1985.³ Meanwhile, in the United States and Canada, FPRS has grown into one of the more important areas within ORL medicine.⁴ At present, the most popular area for postgraduate training in the United States is the program in FPRS (followed in popularity by neurotology and head and neck cancer and surgery). Consequently, most academic clinics in these 2 countries have appointed 1 or more staff members who work full-time in the area of FPRS, which means that ORL residents are increasingly exposed to FPRS.

The American Academy of Facial Plastic and Reconstructive Surgery has played an undeniably critical role in motivating this development. The academy, which was

founded in 1964, currently has approximately 2700 members. Recently it published the second edition of its own textbook; it also provides for a certification process through many high-quality fellowships, followed by an annual examination by the American Board of Facial Plastic and Reconstructive Surgery.

Following closely in the footsteps of its American counterpart, the EAFPS has made great strides in recent years. The EAFPS was founded in 1977 and now has approximately 500 members, mainly ORL physicians. Like the American academy, the EAFPS will soon (in early 2005) publish a textbook, the result of concerted efforts by specialists in FPRS working in Europe. Especially during the past few years, there has been a sharp rise in the number of fellows in FPRS thanks to the EAFPS. Certification is arranged through the American Board of Facial Plastic and Reconstructive Surgery examination in Washington. Moreover, after passing this examination, the candidate can become an affiliate of the International Federation of Facial Plastic Surgery Societies by performing more than 100 major FPRS operations within a 2-year period.

Interest in FPRS has been increasing among ORL physicians in Europe, as has the desire for formal recognition of and certification in the subarea. As our results demonstrate, interest is strong among ORL physicians in the Netherlands. Our results also show that the membership would even support the implementation of FPRS within the curriculum of the ORL residency program.

In that light, we might conclude that the time has come to take steps to make this happen. A critical factor in that effort would be, in our opinion, the appointment of at least 1 staff member in the department of ORL at an academic medical center to set up a specific curriculum and to assume responsibility for the general provision of FPRS. In 1990 in the United States, Thomas and Graboyes² observed that establishing such a position had led to a sharp rise in the number of FPRS operations that were performed by residents (Figure 6). Furthermore, we may conclude that training in FPRS could be made compulsory as part of the 2 ORL certificate examinations, and a Dutch FPRS fellowship could be initiated along the lines of the fellowship of the EAFPS, making use of the certification process of the International Federation of Facial Plastic Surgery Societies. Then, at some time in the future, multidisciplinary support could be sought to develop FPRS further.

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