

A Survey of Cosmetic Surgery Training in Plastic Surgery Programs in the United States

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Background: Aesthetic surgery is evolving rapidly, both technologically and conceptually. It is critical for the specialty that aesthetic surgery training keep pace with this rapid evolution. To shed more light on this issue, a survey was sent to all program directors and senior plastic surgery residents to record their impressions of the quality of cosmetic surgery resident training. The authors report the results of this national cosmetic surgery training survey canvassing all 89 plastic surgery programs.

Methods: A three-page survey delineating resident preparedness in aesthetic surgery was sent to senior plastic surgery residents and program directors in April of 2006 and collected through October of 2006.

Results: Of 814 surveys, 292 responses were obtained from 64 percent of program directors and 33 percent of senior residents. Breast augmentation, breast reduction, and abdominoplasty were most frequently performed with the highest resident comfort levels. Rhinoplasty remained a particular area of trainee concern, but confidence levels were also low in face lifts, endoscopic procedures, and body contouring techniques. Experience with skin resurfacing, fillers, and botulinum toxin type A was another area of concern. Although 51 percent of residents felt prepared to integrate cosmetic surgery into their practices on graduation, 36 percent felt that further cosmetic training was desirable.

Conclusions: The information collected revealed significant differences in opinions between program directors and senior residents. Senior residents felt deficient in facial cosmetic, minimally invasive, and recently developed body contouring techniques. On the basis of these results and the authors' experience in resident education, changes in cosmetic surgery training are suggested. (*Plast. Reconstr. Surg.* 122: 1570, 2008.)

Nearly 11 million cosmetic surgery procedures were performed in the United States in 2006. Traditional surgical interventions increased by 2 percent, to over 2 million; and minimally invasive procedures rose by 8 percent, to more than 9.1 million.¹ As third-party reimbursement declines, many plastic surgeons are gravitating toward cosmetic surgery to lessen their financial shortfall. Academic institutions are also more interested in cosmetic procedures, as they offer a logical source of additional revenue in a time of reduced budgets and health care reforms.²

New challenges and competition face plastic surgeons in this cosmetic surgery arena.³ Dramatic advances in information technology have

produced a well-informed, increasingly sophisticated patient population. Competition comes not only from within plastic surgery but also from otolaryngologists, ophthalmologists, dermatologists, and physicians outside conventional cosmetic-related specialties.

Although it is clear that graduating plastic surgery residents require the highest standard of cosmetic surgery training if they are to maintain a competitive edge, what defines this standard is perhaps less clear. In an attempt to evaluate the quality of current cosmetic surgery training and identify perceived strengths and weaknesses, we conducted a survey of plastic surgery program directors and senior residents in 2006.

From the Departments of Plastic Surgery and General Surgery, Cleveland Clinic.

Received for publication August 30, 2007; accepted January 21, 2008.

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DOI: 10.1097/PRS.0b013e318188247b

Disclosure: None of the authors has a financial interest in any of the products, devices, or drugs mentioned in this article.

METHODS

All currently approved plastic surgery programs in the United States ($n = 89$) were surveyed. A pretesting trial of surgeons ($n = 10$) was used to identify ambiguities and inconsistencies in the cover letter and survey questions.^{4,5}

The survey addressed two broad areas: (1) specifics regarding resident cosmetic surgery training and (2) the confidence and satisfaction associated with this experience. The questionnaire was designed to maximize physician participation (Fig. 1). It was formatted so that respondents could simply encircle an appropriate answer and included multiple choice questions that used a five-point, ordinal scale. This scale ranked the respondents' answers from 1 (not confident) to 5 (very confident).

The survey consisted of 14 questions (program directors) and 19 questions (senior residents), contained on three pages. It was completed readily in approximately 10 to 15 minutes. Additional questions that applied to senior residents but not program directors detailed desirable areas of additional training and future career aspirations. Senior residents were offered a cash incentive of \$15 to complete the survey.

Surveys were mailed in April of 2006 to senior residents only. Responses to the survey were collected through October of 2006. A recent listing and the corresponding mailing address for program directors and senior residents was obtained from the American Society of Plastic Surgeons. Surveys were distributed in a single mailing.

The returned questionnaires underwent examination to ensure that the directions had been followed and that the data reported were consistent and accurate. The responses were entered into an Excel spreadsheet (Microsoft Corp., Redmond, Wash.). Incomplete surveys were included to the greatest possible extent.

The analysis was performed using R software. Results of the exact and asymptotic tests were compared and found to be similar, so the asymptotic results are presented. Responses to each question were summarized using frequencies and percentages. To compare responses between program directors and residents, chi-square tests were used for nominal and two-level variables. Comparisons on ordered variables were performed using Wilcoxon rank sum tests. A significance level of 0.05 was assumed for all tests.

RESULTS

A total of 292 surveys were returned. Fifty-seven of 89 program directors' surveys (64 per-

cent) and 235 of 705 senior residents' surveys (33 percent) were successfully completed.

Program Director Survey

Eighty-seven percent of the program directors responding were men and 13 percent were women. Sixty-five percent of the responding plastic surgery programs in the United States were independent, whereas 35 percent were integrated. Ninety-eight percent of programs include a specific cosmetic surgery rotation. The majority of program directors stated that there is considerable exposure to a variety of minimally invasive techniques and that over 75 percent of residents receive adequate laser training. Program directors were significantly more likely to state that a cosmetic rotation included skin care, chemical peels, and noninvasive laser treatments (Table 1).

In independent programs, 3 to 6 months was the most common amount of time spent in cosmetic surgery rotations, accounting for between 60 and 70 percent of responses. In the integrated programs, cosmetic surgery rotations were much more frequent in later years (years 5 and 6). Program directors stated that 72 percent of training programs have a resident cosmetic clinic and 50 percent of those with a clinic stated that their trainees perform at least 20 clinic cases each year.

Program directors felt that a combination of a resident cosmetic clinic and staff cosmetic patients provides the most useful form of training. Approximately 40 percent of program directors indicated that more than half of their residents pursue fellowships. Slightly more than half of program directors encourage their residents to pursue some type of postgraduate cosmetic fellowship. Twenty-five percent also mentioned that more than half of their residents pursue solo private practice, and fewer join group private practice or practice at an academic institution. Seventy-six percent of program directors stated that residents were satisfied (level 4 or 5) with the cosmetic training available at their institution (Table 2).

With regard to comfort level with a variety of operations, program directors' opinions paralleled those of senior residents. In the opinion of the program directors, residents were most comfortable performing breast and body contouring procedures. Rhinoplasty, endoscopic breast augmentation, hair transplantation, and newer body contouring techniques were perceived as the most challenging procedures and/or procedures with which residents were least familiar.

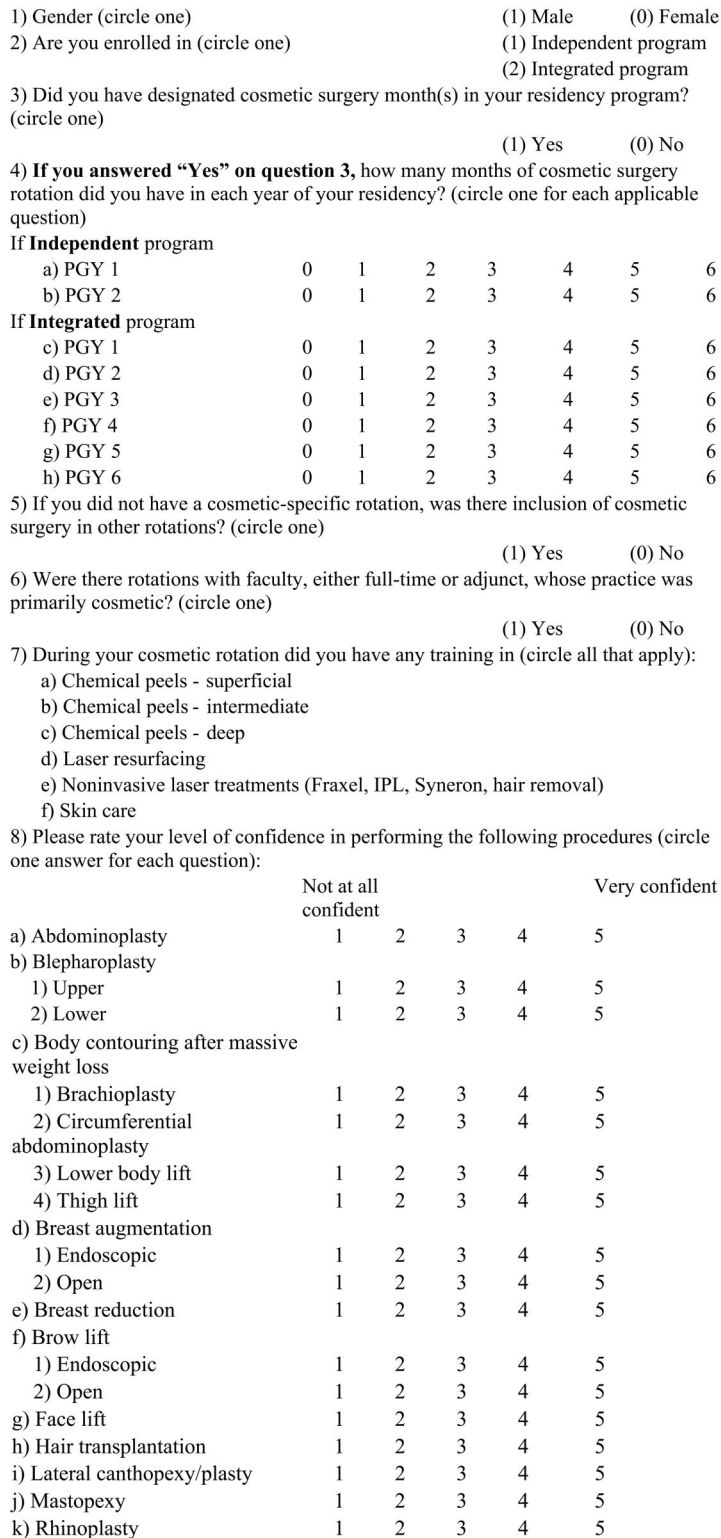


Fig. 1. Cosmetic training in plastic surgery resident survey.

In all surgery types, program directors indicated that they had greater confidence in the ability of residents to perform procedures than the senior residents stated themselves. In most cases, the

difference was highly significant ($p < 0.001$). In endoscopic breast augmentation, the difference, though statistically significant, was smaller ($p = 0.038$) (Table 3).

9) If you could dedicate a month during your residency to improve your skills in a procedure that you don't feel currently confident doing, what would you choose? (circle all that apply)

- a) Skin care
- b) Laser resurfacing
- c) Chemical peels
- d) Noninvasive laser treatments
- e) Breast reduction
- f) Breast augmentation
- g) Abdominoplasty
- h) Body contour after massive weight loss
- i) Rhinoplasty
- j) Face lift
- k) Brow lift
- l) Blepharoplasty
- m) Mastopexy
- n) Hair transplantation

10) How satisfied are you with your cosmetic training? (circle one)

Not at all satisfied					Very satisfied
1	2	3	4	5	

11) How many of each of the following cases do you think you would need to do in order to perform that procedure safely and with confidence? (circle one answer for each question)

- | | | | | |
|------------------------|---------|---------|----------|---------|
| a) Breast reduction | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |
| b) Breast augmentation | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |
| c) Abdominoplasty | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |
| d) Liposuction | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |
| e) Facelift | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |
| f) Rhinoplasty | (1) 0-3 | (2) 4-7 | (3) 8-10 | (4) >10 |

12) Regarding your staff approach to a cosmetic case, what percentage of a cosmetic case do you actually do? (circle one)

- (1) <25% (2) 25-50% (3) 51-75% (4) 76-99% (5) 100%

13) Do you have a resident cosmetic clinic? (circle one)

- (1) Yes (0) No

14) If you answered "Yes" to question 13, how many cases a year are you allowed to do in your resident cosmetic clinic? (circle one)

- (1) 1-9 (2) 10-15 (3) 16-20 (4) >20

15) Where do you think you get the most benefit from learning a cosmetic case? Please rank the following (1= best, 2= second best, 3=worst):

- a) Resident cosmetic clinic _____
- b) Staff cosmetic patient _____
- c) Books, journals _____

16) How well prepared are you to integrate cosmetic surgery into your practice when you graduate? (circle one)

Not at all prepared					Very prepared
1	2	3	4	5	

17) If you are interested in a cosmetic practice, do you feel the need for a cosmetic fellowship? (circle one)

- (1) Yes (0) No

18) Do you plan to pursue subspecialty training? (circle one)

- (0) No
- (1) Cosmetics
- (2) Breast
- (3) Microsurgery
- (4) Hand
- (5) Craniofacial

19) What are your future goals? (circle one)

- (1) Solo private practice
- (2) Group private practice
- (3) Academic institution

Fig. 1. (Continued.)

Table 1. Cosmetic Surgery Training Survey Responses from Program Directors and Senior Residents in Plastic Surgery Programs

Variable	Program Directors			Residents			p*
	Total	No.	%	Total	No.	%	
Gender							0.094
Female	55	7	12.7	235	57	24.3	
Male	55	48	87.3	235	178	75.7	
Program							0.44
Independent	55	36	65.5	232	136	58.6	
Integrated	55	19	34.5	232	96	41.4	
Cosmetic rotation	46	45	97.8	165	160	97.0	0.85
Rotations with faculty	56	43	76.8	232	186	80.2	0.70
Chemical peels							
Superficial	57	32	56.1	235	95	40.4	0.046
Intermediate	57	26	45.6	235	83	35.3	0.20
Deep	57	24	42.1	235	53	22.6	0.005
Laser resurfacing	57	44	77.2	235	127	54.0	0.002
Noninvasive laser treatments	57	30	52.6	235	84	35.7	0.028
Skin care	57	34	59.6	234	77	32.9	<0.001
Resident cosmetic clinic	57	41	71.9	235	151	64.3	0.35
Cases performed by residents (per year)							<0.001†
1–9	40	1	2.5	148	17	11.5	
10–15	40	11	27.5	148	33	22.3	
16–20	40	8	20.0	148	18	12.2	
>20	40	20	50.0	148	80	54.1	

*Chi-square tests.

†Wilcoxon rank sum test.

Table 2. Program Director and Resident Satisfaction with Current Cosmetic Surgery Training

	Total	Not Satisfied			Very Satisfied		p
		1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	
Director	55	1 (1.8)	3 (5.5)	9 (16.4)	28 (50.9)	14 (25.5)	<0.001
Resident	234	13 (5.6)	33 (14.1)	68 (29.1)	70 (29.9)	50 (21.4)	

Senior Resident Survey

Seventy-six percent of the senior residents who replied were men and 24 percent were women. Fifty-nine percent trained in independent programs, and 41 percent trained in integrated programs. Ninety-seven percent of senior residents with complete responses stated that they had some form of cosmetic surgery rotation, and the majority (80 percent) had rotations with their local faculty. Nonsurgical interventions formed a small component of these rotations. Only a minority of trainees received exposure to superficial, intermediate, or deep chemical peeling; noninvasive laser; or skin care (Table 1).

Rotations commonly lasted 3 to 4 months. In independent programs, the majority of senior residents had their cosmetic surgery training in the second year. Similarly, in integrated programs, rotations were included most frequently in the latter years (years 5 and 6).

Sixty-four percent of programs have a resident cosmetic clinic. Most trainees (76 percent) felt

that resident cosmetic clinics were the most beneficial form of teaching.

Fifty-four percent of those with resident cosmetic clinics stated that they perform at least 20 cases in their clinic per year. Fifty percent of senior residents plan to pursue some type of subspecialty postgraduate training and 36 percent felt that a cosmetic surgery fellowship would be helpful (Table 4).

With regard to individual cosmetic procedures, senior residents claimed to have the greatest confidence and comfort level with breast and body contouring, including open breast augmentation, breast reduction, and abdominoplasty. Senior residents had the lowest comfort levels with endoscopic breast augmentation, rhinoplasty, hair transplantation, and lower body lifts. Fifty-one percent of the respondents stated that they were satisfied (level 4 or 5) with their program and felt prepared to integrate cosmetic surgery into their practice on graduation (Table 2).

Seventy percent of senior residents cited rhinoplasty as the procedure with which they desired

Table 3. Program Director and Resident Perception of Residents' Ability to Perform Cosmetic Procedures

Procedure	Group	Total	Not Confident			Very Confident		p*
			1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	
Breast reduction	Director	56	0 (0.0)	0 (0.0)	0 (0.0)	7 (12.5)	49 (87.5)	<0.001
	Resident	231	0 (0.0)	0 (0.0)	14 (6.1)	45 (19.5)	172 (74.5)	
Open breast augmentation	Director	54	1 (1.9)	0 (0.0)	0 (0.0)	10 (18.5)	43 (79.6)	<0.001
	Resident	225	2 (0.9)	10 (4.4)	23 (10.2)	80 (35.6)	110 (48.9)	
Abdominoplasty	Director	56	0 (0.0)	0 (0.0)	1 (1.8)	13 (23.2)	42 (75.0)	<0.001
	Resident	233	0 (0.0)	3 (1.3)	16 (6.9)	41 (17.6)	173 (74.2)	
Mastopexy	Director	56	0 (0.0)	2 (3.6)	4 (7.1)	21 (37.5)	29 (51.8)	<0.001
	Resident	233	6 (2.6)	15 (6.4)	52 (22.3)	84 (36.1)	76 (32.6)	
Upper blepharoplasty	Director	56	0 (0.0)	1 (1.8)	7 (12.5)	24 (42.9)	24 (42.9)	<0.001
	Resident	232	9 (3.9)	21 (9.1)	41 (17.7)	81 (34.9)	80 (34.5)	
Brachioplasty	Director	56	1 (1.8)	2 (3.6)	7 (12.5)	22 (39.3)	24 (42.9)	<0.001
	Resident	232	12 (5.2)	26 (11.2)	58 (25.0)	91 (39.2)	45 (19.4)	
Circumferential abdominoplasty	Director	56	3 (5.4)	2 (3.6)	9 (16.1)	19 (33.9)	23 (41.1)	<0.001
	Resident	232	17 (7.3)	26 (11.2)	56 (24.1)	80 (34.5)	53 (22.8)	
Lower body lift	Director	56	4 (7.1)	3 (5.4)	11 (19.6)	16 (28.6)	22 (39.3)	<0.001
	Resident	231	20 (8.7)	40 (17.3)	79 (34.2)	58 (25.1)	34 (14.7)	
Lower blepharoplasty	Director	56	0 (0.0)	5 (8.9)	9 (16.1)	23 (41.1)	19 (33.9)	<0.001
	Resident	231	11 (4.8)	37 (16.0)	62 (26.8)	83 (35.9)	38 (16.5)	
Thigh lift	Director	56	3 (5.4)	4 (7.1)	7 (12.5)	25 (44.6)	17 (30.4)	<0.001
	Resident	230	21 (9.1)	39 (17.0)	70 (30.4)	71 (30.9)	29 (12.6)	
Face lift	Director	56	1 (1.8)	2 (3.6)	8 (14.3)	30 (53.6)	15 (26.8)	<0.001
	Resident	232	33 (14.2)	42 (18.1)	64 (27.6)	60 (25.9)	33 (14.2)	
Endoscopic brow lift	Director	56	5 (8.9)	4 (7.1)	12 (21.4)	20 (35.7)	15 (26.8)	<0.001
	Resident	231	60 (26.0)	43 (18.6)	49 (21.2)	48 (20.8)	31 (13.4)	
Open brow lift	Director	56	3 (5.4)	3 (5.4)	15 (26.8)	22 (39.3)	13 (23.2)	<0.001
	Resident	232	34 (14.7)	40 (17.2)	57 (24.6)	67 (28.9)	34 (14.7)	
Lateral canthopexy/plasty	Director	56	0 (0.0)	5 (8.9)	15 (26.8)	26 (46.4)	10 (17.9)	<0.001
	Resident	230	31 (13.5)	38 (16.5)	71 (30.9)	55 (23.9)	35 (15.2)	
Endoscopic breast augmentation	Director	52	16 (30.8)	7 (13.5)	19 (36.5)	3 (5.8)	7 (13.5)	0.038
	Resident	228	103 (45.2)	42 (18.4)	39 (17.1)	26 (11.4)	18 (7.9)	
Rhinoplasty	Director	56	2 (3.6)	5 (8.9)	23 (41.1)	21 (37.5)	5 (8.9)	<0.001
	Resident	233	33 (14.2)	55 (23.6)	79 (33.9)	51 (21.9)	15 (6.4)	
Hair transplant	Director	53	27 (50.9)	10 (18.9)	12 (22.6)	2 (3.8)	2 (3.8)	<0.001
	Resident	230	147 (63.9)	40 (17.4)	25 (10.9)	11 (4.8)	7 (3.0)	

*Wilcoxon rank sum tests.

Table 4. Resident Plans for Subspecialty Training and Future Goals

	Total	No.	%
Subspecialty training			
No	229	114	49.8
Microsurgery	229	32	14.0
Cosmetics	229	28	12.2
Craniofacial	229	25	10.9
Hand	229	18	7.9
Breast	229	12	5.2
Need for cosmetic fellowship			
Yes	226	82	36.3
Future goals			
Solo practice	231	59	25.5
Group practice	231	96	41.6
Academic	231	76	32.9

Table 5. Additional Areas of Training Requested by Residents*

Procedure	No. (Total n = 234)	%
Rhinoplasty	164	70.1
Chemical peels	114	48.7
Face lift	112	47.9
Laser resurfacing	106	45.3
Skin care	94	40.3
Brow lift	85	36.3
Noninvasive laser treatments	76	32.5
Blepharoplasty	67	28.6
Hair transplantation	66	28.2
Body contouring after massive weight loss	35	15.0
Mastopexy	23	9.8
Breast augmentation	11	4.7
Abdominoplasty	2	0.9
Breast reduction	2	0.9

further experience. Face lift, chemical peels, and laser resurfacing were also listed by nearly 50 percent of respondents. Breast reduction and abdominoplasty were the skills for which the least additional training was considered necessary (Table 5).

With regard to minimum numbers of procedures in cosmetic “index categories,” 80 percent of senior residents indicated that more than 10 cases were necessary to perform a rhinoplasty (80 percent) or a face lift (66 percent) safely and with

confidence. In contrast, only 20 percent and 26 percent of respondents felt that more than 10 cases were needed for competence in liposuction and abdominoplasty, respectively.

DISCUSSION

Plastic surgery training currently involves two pathways to board certification, and each one includes a formal cosmetic surgery training component.^{6,7} The Residency Review Committee of the Accreditation Council for Graduate Medical Education has established minimum cosmetic surgery case requirements for both independent and integrated programs. These include 10 breast augmentations, seven face lifts, eight blepharoplasties, six rhinoplasties, five abdominoplasties, 10 suction lipectomies, and nine “other” cosmetic procedures.⁸ These requirements are one objective, minimum measure of resident experience. When combined with didactic lectures, office experience, and progressive operative responsibility, they form the basis of modern cosmetic surgery training. Most recently, our plastic surgery societies, such as the American Association of Chairmen in Plastic Surgery, have added educational modules to their web sites including Botox and other injectables, filling potential voids in resident education.

There has been considerable debate regarding the ideal format for plastic surgery education. Editorials have been devoted to this subject and a number of publications have attempted to delineate the optimal prerequisite and requisite training period.^{9,10} Our article has attempted to add to the body of plastic surgery literature by focusing on the cosmetic component of plastic surgery training. This was done in survey format, canvassing two groups intimately involved in plastic surgery training: current plastic surgery senior residents and program directors. Senior residents were queried because they have had the most recent experience in plastic surgery cosmetic training. Program directors were selected for survey because they are arguably the most attuned, the most knowledgeable, and the best qualified to assess the resident fund of knowledge and technical abilities. The response rate of program directors (64 percent) suggests that they are particularly interested in this issue.

Our results confirm what many plastic surgeons might expect: residents feel most comfortable performing aesthetic surgery of the breast and trunk and feel least prepared and most vulnerable with complex facial aesthetic surgery. Endoscopic procedures and more recently devel-

oped body procedures such as a lower body lift are additional areas where the majority of senior residents rate their level of expertise as low.

The survey suggests that current training may not be addressing advances in the nonsurgical and minimally invasive aspects of cosmetic surgery. According to statistics from the American Society for Aesthetic Plastic Surgery, nonsurgical cosmetic procedures increased by 747 percent from 1997 to 2006.¹¹ Although this area may not require great surgical expertise, some familiarity with these procedures would be helpful, given the increasing frequency with which they are performed in practice.

Cosmetic surgery training, however, needs to be kept in the context of plastic surgery education as a whole.¹² Not only cosmetic surgery but also most other areas of subspecialty interest in plastic surgery are becoming more complex. Increasing time spent in one area by default decreases time spent elsewhere. A recent survey of educational goals by plastic surgery graduates highlighted this issue. When practicing plastic surgeons were asked to prioritize time spent in subspecialty areas, cosmetic surgery ranked fourth behind hand surgery, breast surgery, and microsurgery.¹³

As with most surveys, this article has its weaknesses. Both senior residents' and program directors' opinions were evaluated using the Likert (five-point) scale. Although this is not a validated tool, the goal of this study was to understand opinions and experiences of residents and program directors. As such, we are aware of no better objective means with which to evaluate whether responses reflect “truth,” allowing for a validated tool. Despite this lack of validation, we believe that this study accurately reflects the opinions and experiences of our target population.

Unfortunately, the resident response rate was significantly lower (33 percent) than that of the program directors. This occurred despite a cash incentive offered to the plastic surgery residents. Clinical responsibilities and time constraints were inevitable contributing factors. However, some surveys were also returned unopened, suggesting recent address changes. When only one-third of respondents answer a given survey, it is uncertain whether the responders are typical of that given population. In an attempt to ensure that responders were indeed typical of the senior resident and program director population, we corroborated that the female-to-male ratio of plastic surgery residents correlated to the 25 to 75 percent female-to-male ratio of resident respondents (Table 1). Although resident response rates were admittedly

low, these rates compare favorably with other recent and related studies. This includes the American Society for Aesthetic Plastic Surgery/American Society of Plastic Surgeons Laser Task Force Survey,¹⁴ in which a 34 percent response rate was noted; and the National Plastic Surgery Survey: Face lift Techniques and Complications, in which a 15 percent response rate was noted.¹⁵

We also failed to differentiate between independent and integrated programs. We decided not to do this because the small number of resident responses in each group would have made comparisons difficult.

Can cosmetic surgery be adequately taught as part of the core curriculum in the twenty-first century?¹² We and others agree that it is possible, but we also believe that cosmetic surgery training should be refined and improved.

One option is to extend the training period to include modules based on specific areas of resident interest (e.g., those interested in craniofacial surgery would choose a craniofacial training module; those interested in cosmetic surgery, a cosmetic module). The optimum length of time spent in a given module, however, has not yet been determined and might need to be constrained should one subspecialty prove substantially more popular than others.¹²

Our suggestions for change include (1) establishing a national standardized core cosmetic curriculum; (2) the addition of a compulsory plastic surgery resident clinic; (3) updating the cosmetic index cases to include recently developed body contouring procedures, fillers, botulinum toxin type A (Botox; Allergan, Inc., Irvine, Calif.), and nonablative light-based techniques; (4) expanding the minimum requirements in rhinoplasty and other facial cosmetic procedures; (5) encouraging programs that are deficient in certain aspects of cosmetic surgery to establish formal rotations with stronger units; and finally (6) the development of postgraduate cosmetic fellowships funded by national societies.

Quality postgraduate fellowships are currently limited in number, at least in part because funding for these fellowships falls on the institution or practice. If partial funding was provided by our national societies, more quality fellowships might result.

We hope that this survey acts as a stimulus to reevaluate plastic surgery education. History shows that if we as plastic surgeons do not seek the initiative, other specialties or individuals certainly will. These suggested changes may be the best way of maintaining the high standards expected of our specialty.

SUMMARY

This national survey of plastic surgery program directors and senior residents in the United States documents current perceptions of cosmetic surgery training. Breast and body contouring surgery are seen as areas of strength, whereas rhinoplasty and other facial cosmetic procedures are seen as areas of weakness. Senior residents also highlight a lack of organized training in minimally invasive and nonsurgical techniques. Means of enhancing cosmetic surgery education are suggested, including the establishment of a compulsory resident clinic, expanding the cosmetic “index cases,” and encouraging the development and funding of postgraduate cosmetic surgery fellowships.

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ACKNOWLEDGMENTS

The authors thank Darlene Lyons, Department of Plastic Surgery, Cleveland Clinic, and James Bena, Quantitative Health Sciences, Cleveland Clinic, for their assistance with preparation of this article.

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