

# Surveying Cosmetic Procedural Residency Training: Are We Short-Changing Tomorrow's Dermatologists? A Preliminary Report

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Cosmetic procedures have become an integral part of many dermatology practices. Therefore, are dermatology residency programs adequately preparing residents for the cosmetic component of their future dermatology practices? A survey was distributed to dermatology residents at the 5th Annual Meeting, Exhibition, and Workshops of the American Society of Cosmetic Dermatology & Aesthetic Surgery. Residency training in various types of cosmetic procedures were examined, as well as the types and locations of residents' future practices. The results of the survey indicated that many dermatology residency programs are not providing sufficient training in cosmetic dermatology procedures. A lack of training in cosmetic procedures may leave young dermatologists ill-prepared in this aspect of their practices.

The practice of cosmetic dermatology is expanding exponentially. A great deal of this expansion is being carried out by nonphysicians, nondermatologists, and a wide variety of others who are manifestly unqualified. This

study addresses, from a resident's perspective, whether or not dermatology residencies are fulfilling their obligations to young dermatologists who intend to make cosmetic procedures an integral part of their practices.

## METHODS

Two groups of dermatology residents were provided with surveys that examined their postresidency career plans, evaluated their residency programs by focusing on cosmetic procedures, and assessed the residents' perceived competency levels in performing cosmetic procedures. The results presented in this article represent the opinions of dermatology residents who attended the 5th Annual Meeting, Exhibition, and Workshops of the American Society of Cosmetic Dermatology & Aesthetic Surgery (ASCDAS) in Las Vegas, Nevada, in December 2006, as well as a smaller group of dermatology residents who received their surveys from interested members of the ASCDAS board. The survey questions are located in the Table.

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## Sample Questionnaire Featuring Survey Questions Distributed to Dermatology Residents

Name (optional): \_\_\_\_\_

Name of the program where you are training: \_\_\_\_\_  
\_\_\_\_\_

Year of residency: \_\_\_\_\_

What percentage of your training programs are devoted to:

- \_\_\_\_\_ Sclerotherapy
- \_\_\_\_\_ Chemical peel
- \_\_\_\_\_ Hair transplantation
- \_\_\_\_\_ Scar revision
- \_\_\_\_\_ Dermabrasion
- \_\_\_\_\_ Botulinum toxin injections
- \_\_\_\_\_ Liposuction
- \_\_\_\_\_ Fillers

When you finish, where do you intend to practice?

- City  
City population:
  - Over 100,000
  - Over 1 million
- Rural

Practice setting you intend to establish:

- Solo practice
- Group practice

Have you applied for or planned to attend procedural dermatology programs? \_\_\_\_\_

Percentage of practice you intend to devote to elective procedures:

- 10%
- 20%
- 30%
- 40%
- 50%

Are you laser literate? \_\_\_\_\_

What percentage of your training is devoted to:

- \_\_\_\_\_ Resurfacing lasers
- \_\_\_\_\_ Vascular lasers
- \_\_\_\_\_ Intense pulsed light
- \_\_\_\_\_ Tattoo removal/pigmented lesion lasers
- \_\_\_\_\_ Other

What percentage of your training is devoted to cutaneous soft tissue augmentation with injectable fillers?

Filler material(s)

- \_\_\_\_\_ Calcium hydroxylapatite
- \_\_\_\_\_ Collagen
- \_\_\_\_\_ Hyaluronic acid
- \_\_\_\_\_ Poly-L-lactic acid
- \_\_\_\_\_ Silicone
- \_\_\_\_\_ Other

Do you feel that your training during residency is preparing you for the type of practice you intend to carry out? \_\_\_\_\_

Comments:

\_\_\_\_\_  
\_\_\_\_\_

Have you ever attended courses outside your training program to learn how to perform cosmetic surgery procedures? \_\_\_\_\_

Where did you take your courses?

- The American Academy of Dermatology meetings
- The American Society of Dermatologic Surgery meetings
- The Annual Meeting, Exhibition & Workshops of the American Society of Cosmetic Dermatology & Aesthetic Surgery
- The American College of Physicians meetings
- Rotations through private offices
- Fellowships
- Other

Do you feel that you should have had more training in these areas as part of your general residency?  
\_\_\_\_\_

Would you be interested in contributing to a Residents Sentiments Voiced Prominently column in a peer-reviewed journal?  
\_\_\_\_\_

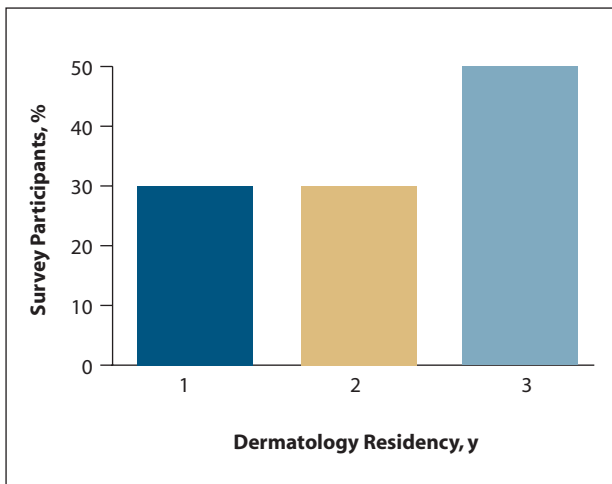
Would you be interested in learning the didactic portion of cosmetic procedures via secure online training programs?  
\_\_\_\_\_

**RESULTS**

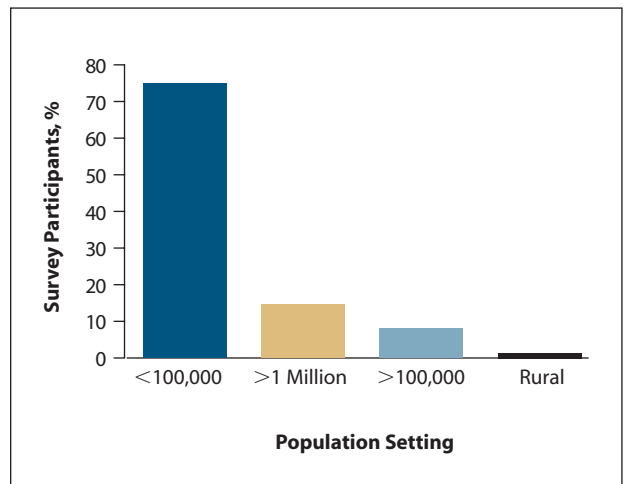
There were 92 participants in the survey, representing 44 different dermatology residency programs across the country. The survey included first- through third-year residents, with the greatest representation from third-year residents (Figure 1). In looking at the resident's career plans, we found that the majority of residents (79%) were planning to start out in a group practice setting, with only 14% planning to start out on their own (Figure 2). The majority of these residents were looking to practice in a smaller population setting of fewer than 100,000 people (Figure 3). A significant portion of residents (13%) were undecided about where they wanted to practice. For those residents who wanted to practice in a large city, Los Angeles, Philadelphia, and Chicago were the top 3 choices.

When looking at the residents' training programs, we found that some residency programs were providing

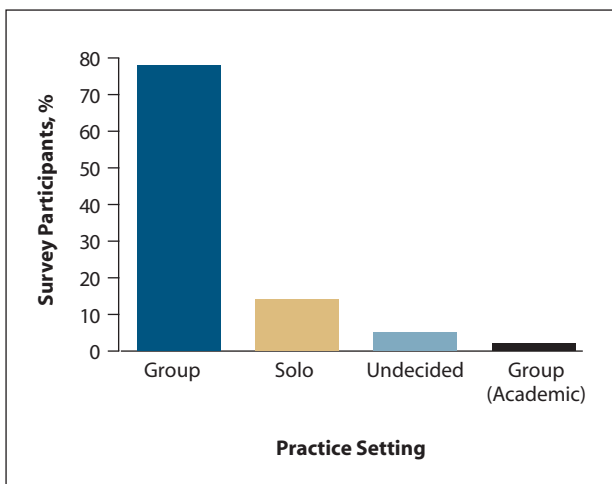
training in cosmetic procedures. The majority of residents considered themselves laser literate (Figure 4). This finding seems counterintuitive because less than 10% of procedural training involves laser-oriented procedures. It is likely that many residents were defining *laser literate* as understanding the technical principles of laser surgery and not their level of competency in performing the procedures. However, when comparing cosmetic procedures, residents seemed to receive more training in laser and intense pulsed light procedures than injectable fillers or chemical peels (Figures 5 and 6). Residents had the most training in using vascular lasers, followed by, in decreasing frequency, lasers for hair reduction, pigmented lesions, tattoo removal, intense pulsed light, and resurfacing or fractionated lasers. The majority of residents reported some prior experience with filler agents, with hyaluronic acid being the most common (61%), followed



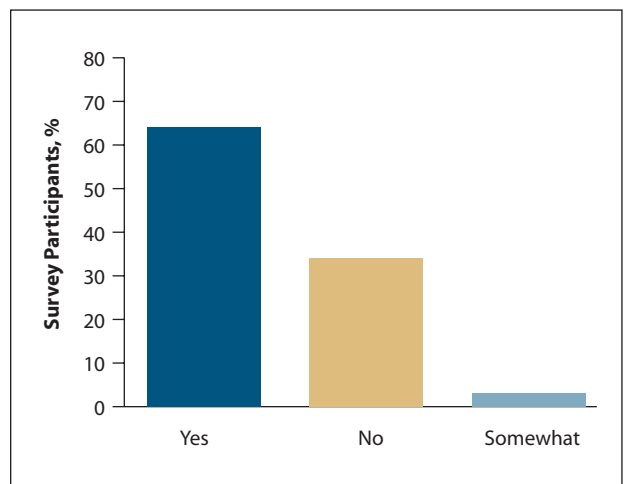
**Figure 1.** The percentage of survey participants who are in their first, second, and third years of dermatology residency training.



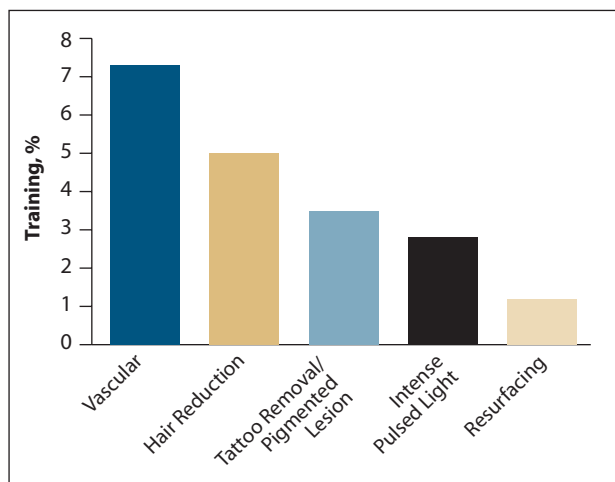
**Figure 3.** The population of the setting in which dermatology residents are intending to practice in.



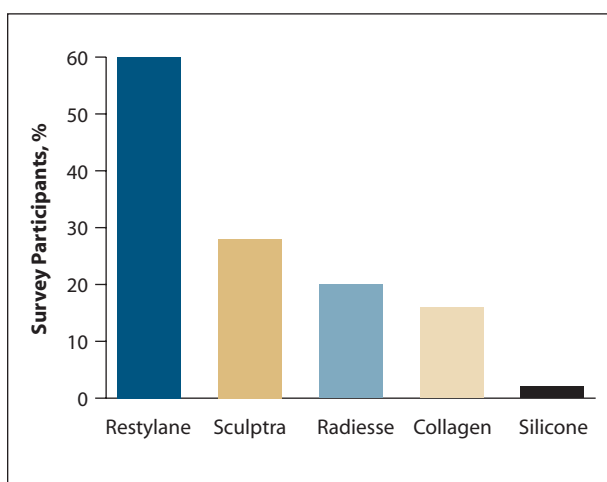
**Figure 2.** The percentage of dermatology residents who plan to enter into a certain type of practice setting.



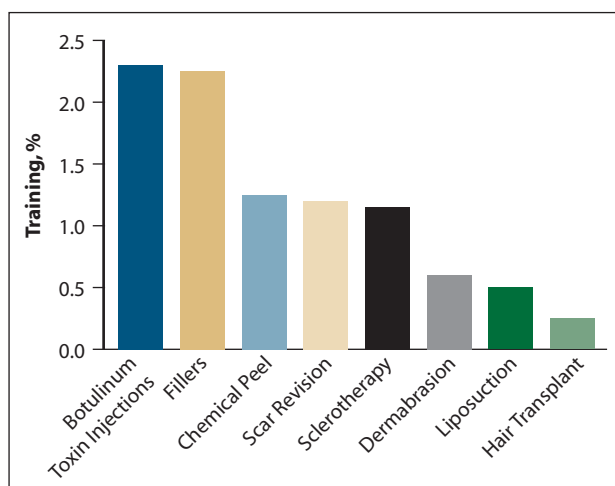
**Figure 4.** The percentage of dermatology residents who consider themselves laser literate.



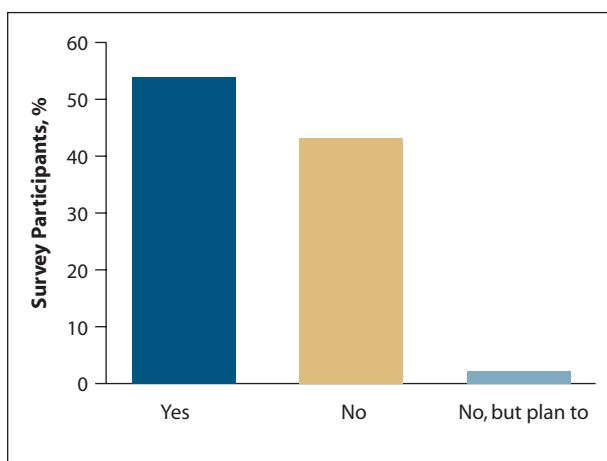
**Figure 5.** The percentage of residency training devoted to certain laser procedures.



**Figure 7.** The percentage of various fillers used by dermatology residents for cutaneous soft tissue augmentation.



**Figure 6.** The percentage of residency training devoted to certain cosmetic procedures.



**Figure 8.** The percentage of dermatology residents who have supplemented their residency training programs with courses on cosmetic procedures.

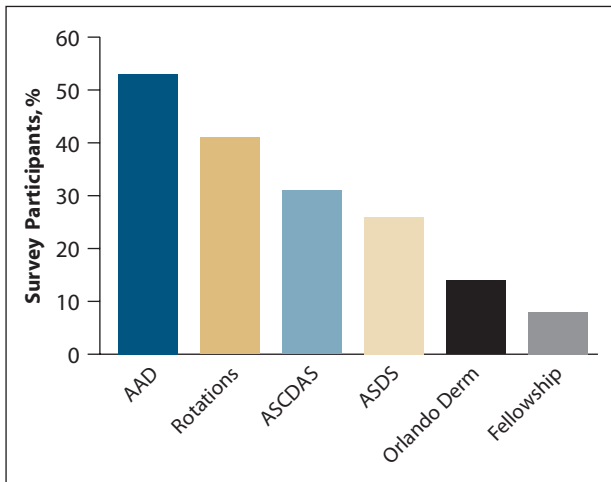
by poly-L-lactic acid, calcium hydroxylapatite, collagen, and silicone (Figure 7).

Many residents supplemented their training programs with courses on cosmetic procedures (Figure 8). The majority of residents (52%) cited courses sponsored by the American Academy of Dermatology as a source for cosmetic training, followed by private office rotations, the annual ASCDAS meeting, the American Society of Dermatologic Surgery meetings, the Orlando Dermatology & Aesthetic Conference, and prior fellowship training (Figure 9). Forty-six percent of residents expressed interest in applying for procedural dermatology fellowships, whereas 91% expressed interest in online training programs for cosmetic procedures (Figures 10 and 11). The majority of residents (82%) planned to dedicate 30% or less of their practices to cosmetic procedures. A minority of

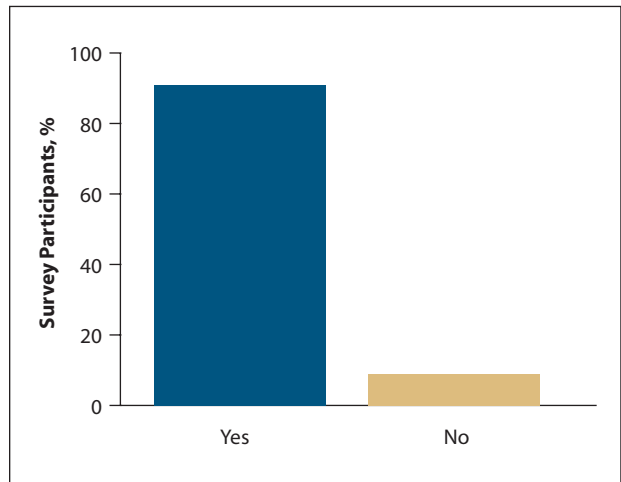
residents (18%) planned to dedicate 40% or more of their practices to cosmetic procedures.

## DISCUSSION

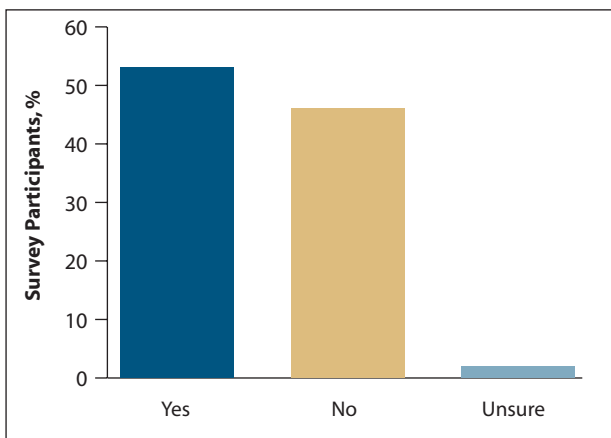
The notion that dermatology residency training programs are not preparing residents for the realities of their intended practices is not new.<sup>1-7</sup> In 2002, Todd et al<sup>1</sup> surveyed 112 dermatology residency programs on the surgical and cosmetic procedure training of residents, of which 73 responded. It was found that only 25 programs (35%) encouraged residents to train in cosmetic procedures. Forty-three programs (61%) were neutral, neither encouraging nor discouraging residents to learn cosmetic procedures. Three programs (4%) discouraged residents from learning cosmetic procedures, and 2 programs (3%) reported no training in cosmetic procedures.<sup>1</sup> Advocates, or dermatologists who feel the



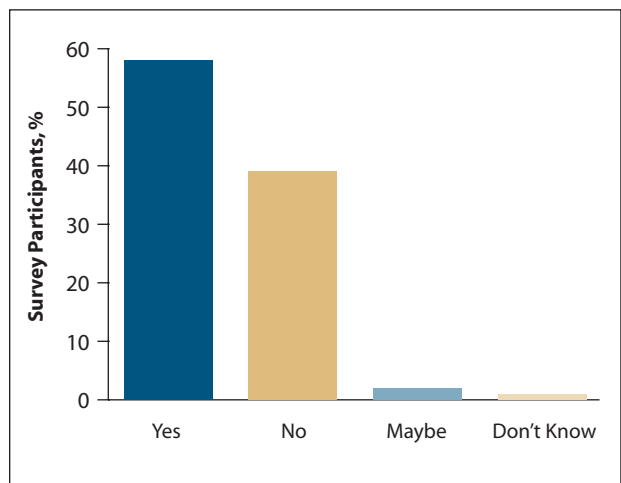
**Figure 9.** The percentage of courses attended by dermatology residents who have supplemented their residency training. Abbreviations: AAD, American Academy of Dermatology; ASCDAS, American Society of Cosmetic Dermatology & Aesthetic Surgery; ASDS, American Society of Dermatologic Surgery; Orlando Derm, Orlando Dermatology.



**Figure 11.** The percentage of dermatology residents interested in learning the didactic portion of cosmetic procedures using online training programs.



**Figure 10.** The percentage of dermatology residents who plan to apply for a procedural dermatology fellowship program.



**Figure 12.** The percentage of dermatology residents who feel their residency training was adequate for preparation to enter into their intended practice.

current residency programs have adept training in cosmetic procedures, emphasize the difficulty of encompassing increasingly complex paradigms for the diagnosis and treatment of dermatologic diseases within the time constraints of existing 3-year programs. These advocates suggest that residents with an interest in procedural dermatology and dermatologic surgery specialization take advantage of elective postresidency procedural fellowships that are already in place.<sup>2-4</sup>

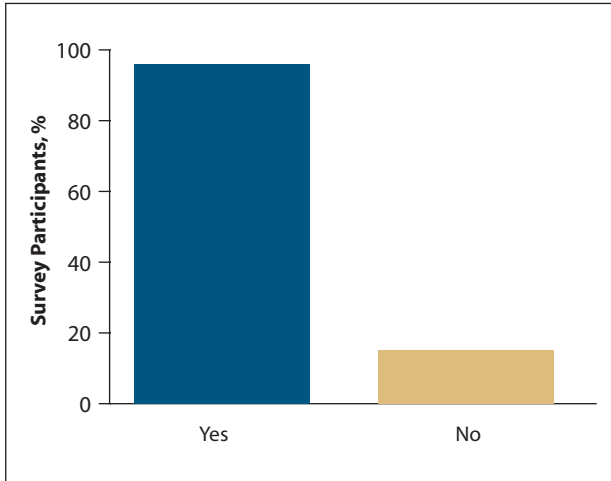
The results of our survey suggest that with or without formal training, a significant number of residents intend to perform cosmetic procedures. In addition, an expanded questionnaire intended to be published at a later date suggests that in some of the residency programs residents are actively discouraged or

intimidated if they openly express an interest in cosmetic dermatology.

The survey employed in this study originated in Dr. David Duffy's office between 2004 and 2007. The impetus for its creation came from an emergency call from a young dermatologist whose sclerotherapy patient developed an unexpected complication that she was unprepared to address.

## CONCLUSION

The majority of dermatology residents entering into practice have a significant interest in cosmetic dermatology, although nearly 50% feel unprepared for the type of practice they intend to have (Figure 12). An overwhelming majority (85%) feel that they should have more



**Figure 13.** The percentage of dermatology residents who feel they should have had more training as part of their general residency.

training in cosmetic procedures in their residency programs (Figure 13). Currently, the amount of training dedicated to cosmetic procedures seems inadequate in the majority of dermatology residency programs. The opportunity for these residents to train in cosmetic procedures and to attend cosmetic conferences varies depending on the year of residency and the elective time to train

outside residency programs. Individual residency programs may limit or not allow electives in cosmetic dermatology. If these findings are confirmed by a larger study in the future, it will become clear that dermatology residency programs are sending inadequately trained physicians into practice, which means these programs could be in direct violation of the obligation to provide meaningful and comprehensive educational programs.

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