

Where are We in Cosmetics and Esthetics Practices in Educational Clinics in Turkey?

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Abstract

Objective: Cosmetic dermatology has recently gained importance with the recent increase in demand. The aim of this study is to identify cosmetic dermatology training in Turkey and to assess instructors' attitudes toward cosmetic dermatology training during residency and current cosmetic dermatology practices. **Methods:** This is a cross-sectional questionnaire study conducted with instructors to investigate the practice of cosmetics dermatology, the technical equipments, number of patients, and their ideas in the clinics that provide dermatology specialty education in Turkey. **Results:** At least one cosmetic procedure was found to be performed in 69% of the clinics that participated in the study ($n = 55$), and no cosmetic procedure was performed in 31% of the clinics. The mean number of application was 13.2 ± 12.3 weekly in the clinics that performed cosmetics procedure. The most common procedures were botulinum toxin injection with 63.6% ($n = 35$), chemical peeling with 60% ($n = 33$), and platelet-rich plasma with 60% ($n = 33$), respectively. The most common laser application was neodymium-doped yttrium aluminum garnet (28/55). The mean time spent for cosmetic procedures was 1–5 h weekly in the clinics which performed cosmetic procedures. Seventy-six percent ($n = 42$) of the participants felt inadequate for performing cosmetics procedures, and 95% ($n = 52$) reported that cosmetic dermatology education was required. **Conclusions:** Both theoretical and practical education must be given in educational clinics, and the infrastructure must be created, and the educational schedule must be standardized.

Keywords: Cosmetics, dermatology, education

INTRODUCTION

Specialty education is an organized education program with theoretical and practice studies of residents. Medical faculty graduates can study dermatology in Turkey after passing the medical specialty examination (MSE) which is held twice annually, and dermatology specialty education lasts 4 years in university hospitals, and training and research hospitals affiliated to the Turkish Ministry of Health. There has recently been an increasing interest on dermatology, and the mean MSE scores required for entering the dermatology specialty are higher than all other specialties. One of the reasons of this is the increased demand for esthetic and cosmetic procedures.

Dermatologists have contributed significantly to the evolution of cosmetic and esthetics dermatology including laser treatments, dermabrasion, botulinum toxin, chemical peeling,

hair transplantation, and soft-tissue augmentation. Aspects of cosmetic dermatology include the maintenance of healthy skin, the prevention and treatment of skin aging and photodamage, and rejuvenation procedures. To continue as leaders in the safe performance of cosmetic dermatology procedures, future dermatologists must be properly trained. Moreover, dermatologists who received no cosmetic education are less preferred in private hospitals and clinics, and they may feel unqualified. Furthermore, if a training gap exists, this may adversely affect patient safety.

Moreover, there are many dermatological diseases which could be treated with cosmetic procedures. These indications are laser procedures for rosacea, infectious disorders (mostly

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Submission: 10-04-2019

Revision: 16-05-2019

Acceptance: 16-05-2019

Web Publication: 17-10-2019

Access this article online

Quick Response Code:



Website:
www.tjdonline.org

DOI:
10.4103/TJD.TJD_6_19

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How to cite this article: Özkur E, Kaynak E, Gürel MS. Where are we in cosmetics and esthetics practices in educational clinics in Turkey? Turk J Dermatol 2019;13:95-8.

papillomavirus lesions), the removal of hairs and tattoos, vitiligo, vascular lesions, cutaneous scarring, some skin tumors, postlesional hyperpigmentation and melasma, mesotherapy or platelet-rich plasma (PRP) for androgenetic alopecia, botulinum toxin injection for hyperhidrosis, as well as chemical peeling, Dermapen, and dermaroller treatments for acne scars and hyperpigmentation.^[1-4] So that, cosmetic dermatology must not be apart from traditional dermatology education but should be a part of it. In the present study, we aimed to investigate the cosmetic dermatology training during residency and the current cosmetic dermatology practices in the clinics which provide dermatology specialty education in Turkey.

METHODS

The present research is a cross-sectional descriptive questionnaire study. A questionnaire was prepared to investigate the cosmetic dermatology education and practices in dermatology education clinics including the detailed information about the cosmetic procedures performed in the clinics, the number of patients presenting for cosmetic procedures, technical equipments, the weekly time spent for cosmetic dermatology, cosmetic dermatology education, and the personal competency. The questionnaire was performed on February 2019 to the instructors who participated to general council meeting about education in dermatology of the Turkish Society of Dermatology. Participants who did not work in clinics which provide dermatology specialty education were excluded, and only one instructor was included from each clinic. The opinions of the participants were measured with their yes–no responses to the questions whether cosmetic procedures were performed (botulinum toxin, filler, etc.) in the clinic, personal competency, and whether the cosmetic education was required. The number of patients applying for these procedures and the monthly number of cosmetic procedures performed in the clinic were measured as the numerical data.

Data were analyzed using IBM SPSS 15.0 for Windows v.21.0. (IBM Corp., Armonk, NY). Number and percentage were given for descriptive statistics and categorical variables; and the mean, standard deviation, minimum, and maximum were given for numerical variables. The ethics board approval was granted.

RESULTS

The study included the 75% ($n = 55$) of the total 73 clinics that provide dermatology specialty education in Turkey. We found that 76% ($n = 42$) of the participant clinics were from university hospitals, and 24% ($n = 13$) were from education and training hospitals. Sixty-nine percent ($n = 38$) of participants reported that cosmetic procedures were performed in their clinics; however, 31% ($n = 17$) of participants reported that no cosmetic procedure was performed in their clinics. The mean number of patients applying for cosmetic procedure was detected as 13.2 ± 12.3 in the cosmetic procedure performing clinics.

The percentages of cosmetic procedures performed among all participated training clinics are demonstrated in Figure 1. The most common procedures were botulinum toxin in 63.6% ($n = 35$), chemical peeling in 60% ($n = 33$), and PRP in 60% ($n = 33$), respectively. The least common procedures were the thread lift and pulsed dye laser procedures which were only performed in a total of 6 clinics (10.9%). The mean number of applications to these clinics is demonstrated in Table 1. Neodymium-doped yttrium aluminum garnet (Nd:YAG) laser device was detected in 28 clinics, carbon dioxide in 10 clinics, erbium YAG in 8 clinics, pulsed dye in 6 clinics, diode in 2 clinics, KTP in 2 clinics, alexandrite in 1 clinic, and Q-switched nd:YAG device was detected in 1 clinic.

We found that 90% ($n = 34$) of the cosmetic procedure performing clinics obtained the patient consent forms from their patients. Twenty-two percent ($n = 12$) of the participants claimed that they never participated to cosmetic education courses, meeting, or congress. A mean weekly time spent for these procedures was <5 h in 68% ($n = 26$) of cosmetic procedure performing education clinics. Seventy-six ($n = 42$) of the participants felt themselves unqualified for performing cosmetic procedures, and 95% ($n = 52$) of the participants suggested that cosmetic dermatology education was required in dermatology education [Table 2].

DISCUSSION

In recent times, there has been an increasing demand for noninvasive cosmetic procedures worldwide. So-called noninvasive cosmetic procedures are botulinum toxin injection, filler, PRP, mesotherapy, dermaroller, dermapen, thread lift, and laser methods. A survey with 561 primary care physicians identified dermatologists as the most qualified specialists to inject botulinum toxin and fillers and to perform laser procedures.^[5] Since the procedures are performed on the skin, and on subcutaneous tissues, dermatologists are the primary professionals in practice, also in the determination of the doses, monitoring of the effect, and in the management of the complications compared with the other branches. Şavk reported

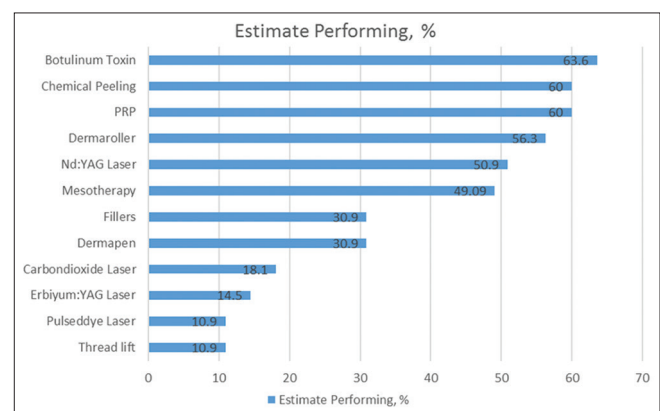


Figure 1: The percentages of cosmetic procedures performed among all participated training clinics in Turkey

the European Union of Medical Specialists (UEMS) as the most authorized and effective international politic organ for all medical practices including the medical specialty education in Europe, in her article in 2012.^[6] UEMS evaluates the cosmetic dermatology within the scope of the dermatology branch. Furthermore, dermatocosmetology is described in the “important learning area” for the residents in the Core Learning Curriculum in Turkey.

There are 73 education clinics which provide dermatology specialty education in Turkey; yet, there is no standardized curriculum for cosmetic dermatology education, and there are differences between the clinics regarding the technical equipment, practitioner or auxiliary staff, and education hours. Residents evaluated the importance of cosmetics education as 4.33 in 5 score system in a cross-sectional questionnaire study of Yilmaz and Akkaya^[7] conducted with 67 residents in 2006 in Turkey. In the same study, they reported the adequacy of cosmetic dermatology education as 1.83 (mean) out of 5 in their own clinics. Cengiz *et al.*^[2] conducted a survey with 121 Turkish residents in 2014, and they found that 73 (60.3%) residents could not learn the cosmetic procedures in their clinics. In line with these studies, a study by Freiman *et al.* was conducted with 48 dermatology residents across Canada and reported that residents were least satisfied with cosmetic dermatology training in their residency program (2.7 of 5.0).^[8]

The importance of cosmetic dermatology in dermatology specialty has also been increasing worldwide. Interestingly, Kiafar *et al.* reported that professors and program directors predicted residents’ first priority would be practicing cosmetic dermatology and 41 (60.3%) of them agreed or strongly agreed that residents’ desire to learn more about cosmetic procedures resulted in their decreased interest in learning medical procedures.^[9] Although there is a concern in the questionnaire studies that cosmetic dermatology will be more popular than the medical dermatology, the requirement for adequate education was suggested in both foreign studies, and in our study.^[10,11] Almost all studies conducted with education clinics and residents on this topic are reported from the USA. The most important reason is that cosmetic dermatology has a significant market share in the USA. A questionnaire study was conducted in 2013 with the administrators of the clinics providing dermatology specialty education in the USA and authors reported that 63% (20 participants of 32) of the administrators suggested that cosmetic dermatology education must be “compulsory.”^[12] The same study reported that theoretical education on liposuction, laser, filler, botulinum toxin injection, chemical peeling, dermabrasion, scar revision, and sclerotherapy was given in 67% of the clinics. Champlain *et al.* reported in their study conducted in the USA in 2018 that 90% of dermatology residents indicated that practice was more important than theoretical education in cosmetic dermatology education. The same study reported that 244 residents of 268 (91%) had the opportunity to perform hands-on cosmetic procedures by themselves.^[13]

The most frequently performed cosmetic procedure was detected as the botulinum toxin injection (63.6%) among all

Table 1: The weekly number of patients applying to education clinics which perform cosmetic procedure in Turkey in accordance with the cosmetic procedure type

	Median±SD	Minimum-maximum
Botulinum toxin	11.7±18.8	1-80
PRP	8.5±9.2	1-35
Nd:YAG laser	8.3±10.5	1-40
Dermaroller	7.3±12.1	1-50
Mesotherapy	7.2±10.0	1-50
Dermapen	5.6±7.5	1-25
Erbium YAG laser	5.4±12.0	1-40
Carbon dioxide laser	5.3±8.5	1-25
Filler	3.8±7.2	1-25
Pulsed dye laser	3.6±9.2	1-30
Thread lift	1.7±2.9	1-10

PRP: Platelet-rich plasma, SD: Standard deviation, Nd:YAG: Neodymium-doped yttrium aluminum garnet

Table 2: Opinions of the participants about the cosmetic dermatology practice, competency, and education

	n (%)
How frequently do you participate to cosmetic education courses (congress courses, company courses) in a year?	
Never	12 (22.2)
1-2	33 (61.1)
3-4	9 (16.7)
How many hours is spent for cosmetic patients in a week in the working order of your clinic?*	
1-5	26 (68.4)
6-9	5 (13.1)
10-25	5 (13.1)
25-40	2 (5.2)
I generally feel to have adequate competency for cosmetic procedures	
Yes	13 (23.7)
No	42 (76.3)
I generally feel to have adequate competency in coping with the possible complications after cosmetic procedures	
Yes	15 (27.3)
No	40 (72.7)
I think cosmetic practices/education are required in educational clinics and in the universities	
Yes	52 (94.6)
No	3 (5.4)

*For the clinics performing cosmetic procedures

clinics that participated in our study. The study of Kirby *et al.* reported 95% of 73 dermatology residents had the opportunity to perform botulinum toxin injection in their clinics in the USA. The practice rates for the laser procedures was reported as 97%, for filler was 85%, for chemical peeling was 85%, and the rate for sclerotherapy was 71% in the study.^[12] In another study conducted with 3rd-year dermatology residents from the University of Texas Medical Faculty, authors reported that 75 (63.6%) trainees felt comfortable performing botulinum toxin injections, 55 (47%) were comfortable performing laser

surgery, 47 (39.8%) were comfortable performing chemical peels, and 37 (31.4%) were also comfortable performing fillers.^[14] On the other hand, Plee *et al.* reported that only 3% of residents had a cosmetic dermatology education during residency, and authors underlined the need for greater focus cosmetic dermatology in France between 2005 and 2010.^[15]

The most frequently used laser device in our study was the nd:YAG laser which was used in nearly half of the clinics. Bauer *et al.* reported that the most frequently used laser was pulsed dye (79%), second Q-switched nd:YAG (58%), and the third most frequently used was the fractional carbon dioxide (38%) in their study which they conducted with dermatology education clinics in the USA.^[16] The comparison of the education clinics in Turkey with the education clinics in the USA showed that both the cosmetic procedures, and the diversity of the laser devices, and practices were inadequate in Turkey. This difference may attribute to the lack of financial resources, inadequate number of personnel, and problems in pricing. In addition, we found that 76% ($n = 42$) of the instructors felt themselves unqualified, and the number of patients applying to the clinics was low in general. In this step, “training of the instructor” must also be emphasized. Dermatology Post Specialty Education Board, that serves within the body of the Turkish Society of Dermatology, organized the first “Practical Cosmetics and Medical Esthetics Course on Anatomy and Fresh Cadaver for Dermatologists” this year. The increase of the number of such courses will also increase the number of the practices of the cosmetic procedures in the clinics.

The limitations of the study were that we could not reach all education clinics, and no face-to-face interview was performed with the participants during the questionnaire procedure. In addition, it is unclear whether the resident is included in the process even if the procedures are performed in the clinics.

CONCLUSIONS

The present study demonstrates the cosmetic dermatology practices, technical equipments, number of patients, and cosmetic dermatology education in the clinics providing dermatology specialty education in Turkey. Cosmetic dermatology seems to be a popular branch of dermatology which shows rapid progress and which needs to be a part of specialty education. Cosmetic dermatology education should not overshadow the medical dermatology education, however must be complementary. Cosmetic dermatology education must be so well-organized that residents must feel qualified and confident enough to perform the procedures in their professional life. Residents who cannot be provided such conditions may visit other clinics with external rotations for a limited time to provide this education or procedural competency can be achieved including with certain number of hands-on courses offered at local, regional, and national meetings for residents. There is a need for a cosmetic dermatology curriculum program, as well as a common curriculum program for traditional

dermatology education, which could be practiced in each clinic that will standardize the cosmetic dermatology education and practice in specialty education.

Acknowledgments

This study was performed within the scope of the Turkish Society of Dermatology. We acknowledge the Turkish Society of Dermatology, to the president Emel Erdal Çalıkoğlu for her help and to the resident representatives Ozan Erdem and Çağdaş Akaslan in delivering and collecting the questionnaires.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

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