# Evaluation of the level of knowledge, source of information, application story and satisfaction about dermocosmetic procedures in Turkish society through a web-based questionnaire



Türk toplumunda dermokozmetik işlemler hakkında bilgi düzeyi, bilgi kaynağı, uygulama öyküsü ve memnuniyetinin web tabanlı anket yoluyla değerlendirilmesi

#### Abstract

**Aim:** There have been very important advances in the field of dermato-cosmetology in recent years. Due to the advances in cosmetology, the emergence of new products, the emergence of new laser devices, the interest of patients in cosmetological applications has increased. We aim to investigate the knowledge and experience of our society about cosmetic procedures, the frequency of the procedures, and the satisfaction rates.

**Methods:** Sociodemographic characteristics such as age, gender, occupation, and monthly income of all individuals participating in the survey were recorded. The first dimension of the questionnaire includes demographic characteristics, and the second dimension includes questions about procedures.

**Results:** The most common dermo-cosmetic application known to the participants was laser epilation (56.3%). The most common sources of information are social media and the internet. While 57.5% of the participants stated that they did not have any cosmetic application, the most frequently applied cosmetic procedure was laser epilation with 27.7%. 40.7% of the participants had cosmetic applications to look young and beautiful. Participants had the procedure performed most frequently at the beauty center with 51.6%.

**Conclusion:** According to the results of our survey, a significant part of our society obtains information about dermocosmetic applications from social media and internet. It has been determined that cosmetic applications are still made intensively by people who are not physicians. The society needs to be properly informed about this issue.

Keywords: Cosmetic application, cosmetics, patient satisfaction

## Öz

Amaç: Son yıllarda dermatokozmetoloji alanında çok önemli gelişmeler olmuştur. Kozmetolojideki ilerlemeler, yeni ürünlerin ortaya çıkması, yeni lazer cihazlarının ortaya çıkması nedeniyle hastaların kozmetik uygulamalara olan ilgisi artmıştır. Amacımız toplumumuzun kozmetik işlemler konusundaki bilgi ve deneyimlerini, işlem sıklıklarını ve memnuniyet oranlarını araştırmaktı.

**Yöntemler:** Araştırmaya katılan tüm bireylerin yaş, cinsiyet, meslek, aylık gelir gibi sosyodemografik özellikleri kaydedildi. Anketin birinci boyutu demografik özellikleri, ikinci boyutu ise dermokozmetik işlemlerle ilgili soruları içermektedir.

**Bulgular:** Katılımcıların bildiği en yaygın dermokozmetik uygulama lazer epilasyon (%56,3) idi. En yaygın bilgi kaynakları sosyal medya ve internettir. Katılımcıların %57,5'i herhangi bir estetik uygulama yaptırmadığını belirtirken, en sık uygulanan kozmetik işlem %27,7 ile lazer epilasyon oldu. Katılımcıların %40,7'si genç ve güzel görünmek için kozmetik uygulama yaptırdı. Katılımcılar, işlemi en sık %51,6 ile güzellik merkezinde yaptırdı.

**Sonuç:** Yaptığımız anket sonuçlarına göre toplumumuzun önemli bir bölümü dermokozmetik uygulamaları hakkında sosyal medya ve internetten bilgi almaktadır. Kozmetik uygulamaların halen yoğun olarak hekim olmayan kişiler tarafından yapıldığı tespit edilmiştir. Toplumun bu konuda doğru bir şekilde bilgilendirilmesi gerekmektedir.

Anahtar Sözcükler: Hasta memnuniyeti, kozmetik, kozmetik uygulama

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#### INTRODUCTION

There have been significant advances in the field of dermatocosmetology in recent years. Dermatologists play an active role in cosmetic procedures as well as diagnostic treatments of skin diseases. In the past, cosmetic applications, which were mostly preferred by older female patients, have now become preferred at earlier ages for both men and women. Due to the advances in cosmetology, the emergence of new products, and the emergence of new laser devices, the interest of patients in cosmetological applications has increased (1). Studies have shown that physical appearance not only increases one's selfconfidence but also increases success in daily life. Having a good physical appearance causes the person to feel good and be happier. A good appearance is also an advantage in a competitive business environment (2). The aim of this study is to investigate the knowledge and experience of our society about cosmetic procedures, the frequency of the procedures, and the satisfaction rates.

## MATERIAL AND METHODS

The design of this study is observational cross-sectional type. The study was carried out using an online questionnaire. Volunteered participants between the ages of 18-60 were included in the study. Those who gave incomplete answers to the questions asked in the questionnaire were excluded from the study. Sociodemographic characteristics such as age, gender, occupation, monthly income of all individuals participating in the survey were recorded. The Google form was used to design of this web-based survey. The first dimension of the questionnaire includes demographic characteristics (5 questions), the second dimension includes questions about dermocosmetic procedures (8 questions). The questions and options in the questionnaire were reviewed by two dermatologists, and possible misunderstandings, grammar and errors were corrected as much as possible. Ethical approval was obtained by applying to the noninterventional ethics committee of Inonu University for the research protocol of this study (Date: 25.01.2022 Decision no:2022/2994).

# Statistical analyses

Power analysis revealed a minimum of 613 respondents with a margin of error of 0.05, the confidence

level of 98%, and the response distribution of 0.50. In the current study, 613 participants, which was higher than the calculated minimum sample size, were enrolled to increase the reliability of the findings to be drawn from this research.

Qualitative data were given as number and percentage, and quantitative data were summarized as mean  $\pm$  standard deviation (SD). Statistical Package for the Social Sciences package program version 26.0 (SPSS Inc., Chicago, IL, USA) was used for statistical analyses.

# **RESULTS**

A total of 613 people answered the survey. The mean age of the participants was 25.0±8.9. 36.3% of the respondents were male and 63.7% were female. 64.7% of the participants were students, 7% were officers, and 5.7% were workers. The income status of 45.4% of the participants was in the range of 4,500-10,000. The region with the highest participation was the Eastern Anatolia Region with 44.1% (Table 1). The dermocosmetic application that the participants knew the most about was laser for epilation (56.3%). The answer given to the question directed for the information source about cosmetic applications was "social media and internet" with 50.5%. While 57.5% of the participants stated that they did not have any cosmetic application, the most common cosmetic procedure was laser for hair removal with 27.7%. "How many cosmetic procedures have you had?" The answer given to the question as "More than 5 applications" was the most with 63.7%. 40.7% of the participants had cosmetic procedures to look young and beautiful. The answer given to the question asked to the participants about the place where the procedure was performed was "beauty center" with 51.6%. While 40.2% of the participants had the dermocosmetic procedure done by non-physicians, 35.1% had it done by a dermatologist. The highest number of answers given to the question that was asked to give a score between 1 and 10 for satisfaction with the procedure was 10 points with 31.3% (Table 2).

# DISCUSSION AND CONCLUSION

Cosmetic dermatology has been advancing rapidly in

**Table 1.** Demographic characteristics of the participants (n=613)

		Number (n)	Percent (%)
Gender	Female	391	63.9
	Male	222	36.1
Occupation	Student	394	64.4
	Officer	55	9.0
	Employee	31	5.1
	Health employee	35	5.7
	freelancer	26	4.2
	Inoperative	71	11.6
Monthly salary (for himself or his family), TL	<minimum td="" wages<=""><td>99</td><td>16.2</td></minimum>	99	16.2
	Minimum wages	129	21.1
	4.500-10000	275	44.9
	10000-20000	87	14.2
	>20000	22	3.6
Known application (more than	Lack of knowledge about cosmetic applications	129	21.1
one can be marked)	Platelet-rich plasma (PRP)	129	21.1
	Filling application	173	28.3
	Mesotherapy (for hair loss or scar treatment)	125	20.4
	Acne skin care (Comedone removal etc.)	228	37.3
	Chemical peeling (peeling)	127	20.8
	Botox	227	37.1
	Laser (for skin spots)	213	34.4
	Laser (for epilation)	350	57.2
	Laser (for vascular lesions)	129	21.1
	Laser (anti-aging)	116	19.0
	Laser (scar/wound treatment)	135	22.1
	Other cosmetic treatments for scar/scar treatment (dermapen, needle injection, etc.)	91	14.9
Source of information on cosmetic applications	Radio/television	48	7.8
	Internet and social media	316	51.6
	magazines	7	1.1
	Friend (close circle)	68	11.1
	Pharmacist	40	6.5
	Hairdresser/beauty center	36	5.9
	Dermatologist	78	12.7
	Non-dermatologist	11	1.8
	No source of information	8	1.3

recent years. Reasons such as people's desire to look young and beautiful and facilitating success in the business field increase the demand for cosmetic applications. The number of aesthetic procedures has increased significantly over the past 10 years in the United States (3). Similarly, the rate of cosmetic proce-

dures is increasing in our country (1).

It is attractive to people that cosmetic procedures heal in a short time, they are affordable, and they do not cause restrictions in daily activities (4). The studies reviewed showed that surgical or non-surgical cosmetic interventions can help improve the quality of life

Table 2. Cosmetic procedures performed, the reason for the procedure, satisfaction with the procedure

		Number (n)	Percent (%)
Have you had a cosmetic procedure? (more than one can be marked)	I did not have cosmetic procedures	355	58
	Platelet-rich plasma (PRP)	29	4.7
	Filling application	8	1.3
	Mesotherapy (for hair loss or scar treatment)	32	5.2
	Acne skin care (comedone removal, etc.)	61	10
	Chemical peeling (peeling)	19	3.1
	Botox	10	1.6
	Laser (for skin spots)	21	3.4
	Laser (for epilation)	167	27.3
	Laser (for vascular lesions)	5	0.8
	Laser (anti-aging)	4	0.7
	Laser (scar/wound treatment)	5	0.8
	Other cosmetic treatments for scar/scar treatment (dermapen, needle injection, etc.) $$	18	2.9
How many of the above	1 application	207	33.8
applications have you done?	2 applications	38	6.2
	3 applications	29	4.7
	4 applications	7	1.1
	5 applications	19	3.1
	>5 applications	15	2.5
Why did you have a cosmetic	Desire to look young and beautiful	120	39.5
application?	For therapeutic purposes (for reasons such as sweating, hair loss, scarring)	85	28
	Facilitating success in the business field	22	7.2
	Desire to gain self-confidence	74	24.3
	Desire not to have difficulties in emotional relationships	26	8.6
	Desire to see change in one's self	86	28.3
The place where the transaction is made	University hospital	22	3.6
	State hospital	39	6.4
	Private hospital/private clinic	87	14.2
	Beauty Center	155	25.3
Who did you have the procedure	Dermatologist	110	18
done?	non-dermatologist physician	22	3.6
	Trained personnel under the supervision of a physician	51	8.3
	Where there is no physician (hairdresser, beauty center)	120	19.6

and psychological well-being of patients who choose to undergo these procedures (2). Most of the patients who have cosmetic applications are female patients, but an increase is seen in male patients (1,2).

Television, newspapers, magazines, the internet, physicians, and friends are effective in applying cosmetic applications. The most important factor that directs the person to cosmetic applications is the desire

to see a change in themselves. Some people use these practices to gain self-confidence. According to a survey study conducted by Okan et al, the most important place of obtaining information about cosmetic applications for female patients was found to be television and the Internet for males. (1) Similarly, in our study, the most common information source of the patients was social media and the internet with 50.5%. In the study

conducted by Okan et al., 19.8% of women and 10.8% of men received information from physicians. The difference in cosmetic procedure application rates in gender groups was found to be statistically significant. It was thought that women's willingness about cosmetic applications and the fact that they expressed this issue more easily explained this difference in the rate of getting information from physicians. Visual and written media also increase people's awareness about cosmetic applications (1,5).

In a study conducted by Cansel et al. 79.5% of the participants, it was found that the most frequently applied cosmetic procedure was laser epilation (6). In our study, on the other hand, it was found that the dermocosmetic application, about which the participants had the most information, was found to be 56.3%, and laser epilation was the most common cosmetic procedure in our study, with 27.7% of the participants. 57.5% of the participants participating in the study did not have any cosmetic application, and the fact that 64.7% of the participants were students may explain the low rate of this rate. The fact that the survey was conducted in a university hospital explains that most of the participants are students.

Aesthetic procedures have been the source of intense interest, especially among women, in today's world. It is thought that the interaction of psychological, demographic, and socio-cultural factors play a role in making cosmetic interventions. The messages given by television and social media about the body, the appreciation of a certain physical appearance by the society, the concept of beauty being at the forefront, and the easy accessibility of cosmetic procedures may cause people to become more socialized (6,7,8).

Today, mass media such as fashion, health and beauty magazines; social media, television, and advertisements constantly send messages about how the ideal human profile should look, creating constant pressure on people to have surgical or non-surgical cosmetic procedures (7,9,10). Supporting this in our study, 40.7% of those who had cosmetic procedures had it done to look young and beautiful.

In recent years, many studies on patients who are interested in or applying for cosmetic procedures have investigated individuals' perceptions of cosmetic procedures, as well as their motivation and interest in these procedures. Overall, these studies have observed that a certain degree of body image and self-esteem dissatisfaction is a key motivation for undergoing cosmetic procedures (7).

In our study, 40.2% of the participants who had cosmetic procedures had dermocosmetic procedures performed by non-physicians (cosmetologists, hair-dressers, etc.). In a study conducted by Kar et al. (11), it was seen that all of the side effects seen in the participants who had laser epilation were laser epilation applications performed by beauticians and most of them performed in beauty centers.

## Limitations

This web-based survey may not fully reflect the general population due to younger tech-savvy involvement and a particularly student predominance. Generalization is not possible due to the limited number of patients in our study, but we think that it is important in terms of drawing attention to the seriousness of the issue. It has been determined that cosmetic applications are still made intensively by people who are not physicians. Considering the recent increase in wrong practices, there is a need for the society to be informed in the right way and from the right sources.

# Conflict-of-interest and financial disclosure

The authors declare that they have no conflict of interest to disclose. The authors also declare that they did not receive any financial support for the study.

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