



## ABSTRACT

**Background:** Cosmetic treatments have gained popularity worldwide. However, little is known about the behaviors and attitudes toward cosmetic treatments in men. **Objective:** The authors sought to explore the behaviors and attitudes toward cosmetic treatments in male patients. **Patients/Methods:** A cross-sectional study was conducted involving male patients aged 18 to 70 years, who presented for cosmetic consultation at an outpatient dermatology clinic in a university-based hospital. Behaviors and attitudes were assessed using a self-response questionnaire. For comparison, female patients with the same inclusion criteria were also assessed. **Results:** A total of 302 male patients completed the questionnaire. The internet and close family members were the two most important sources of cosmetic treatment information. Men preferred oral medication compared to women ( $p < 0.01$ ). Regarding topical medication, men prefer gel formulations, tube containers, and white-colored packaging. The maximum chosen number of topical medication is three items. The most important factor in medical provider selection was the dermatologists' knowledge and expertise. **Conclusion:** Behaviors and attitudes toward cosmetic treatment in male patients were different from those seen in female patients. It is essential to alter the approaches regarding cosmetic treatments when treating men. **KEYWORDS:** Acne, cosmetic dermatology, injectables, laser, melasma, men

# Behaviors and Attitudes Toward Cosmetic Treatments Among Men

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Cosmetic problems, such as acne with postinflammatory hyperpigmentation; pigmentary disorders (e.g., freckle, melasma, solar lentigo); wrinkles; skin laxity; and hair loss are common concerns of men for reasons related with self-esteem and social perception.<sup>1</sup> In recent years, the number of cosmetic procedures and skincare products targeting male consumers has grown. According to the recent data, the percentage of cosmetic procedures in male patients has increased 273 percent since 1997.<sup>1</sup> Although the demand for cosmetic treatment and procedures in men has vastly expanded, data elucidating the behaviors and attitudes toward cosmetic treatments in men are limited.<sup>2</sup> In this study, we explore this matter through the administration of a comprehensive questionnaire.

## MATERIALS AND METHODS

### Study design and patient eligibility.

This questionnaire-based, cross-sectional study was conducted at an outpatient dermatology clinic at Ramathibodi Hospital, Mahidol University in Bangkok, Thailand. Male patients aged 18 to 70 years of who underwent cosmetic consultation (e.g., for acne with postinflammatory hyperpigmentation, acne scars, melasma, pigmentary disorders, hair loss, nevi on face, seborrheic keratosis, or wrinkles) were enrolled in this study. Exclusion criteria included nonconsent to participate, illiteracy, and inability to understand the questionnaire. To compare

the perception differences between men and women, female patients with the same inclusion and exclusion criteria were recruited. This study was approved by the institutional board review of Ramathibodi Hospital, Mahidol University (Protocol Number 055705).

**Questionnaire details.** There were two parts to the questionnaire: 1) documentation of the diagnosis made by a dermatologist and 2) a series of questions to be answered by the participant. Participants were asked to provide demographic data including age, home town, religion, sexual preference, lifestyle behaviors, scholarly achievements, occupation, and income, as well as information on their cosmetic treatment behaviors (e.g., use of skin care products, formulation and packaging types of skin care products, and use of vitamins or other supplements. Attitudes and factors influencing the decision to consider cosmetic treatment were also explored.

The participants were asked to fill out the questionnaire in a private area, without the presence of medical providers, relatives, or companions. After completion, they were asked to hand in the questionnaire by way of a self-deposit box. We also emphasized to participants that all data were confidential, and no identifiable information was presented in the questionnaire.

### Assessment and statistical analysis.

Incomplete questionnaires (e.g., those with at least one unanswered item, those with multiple

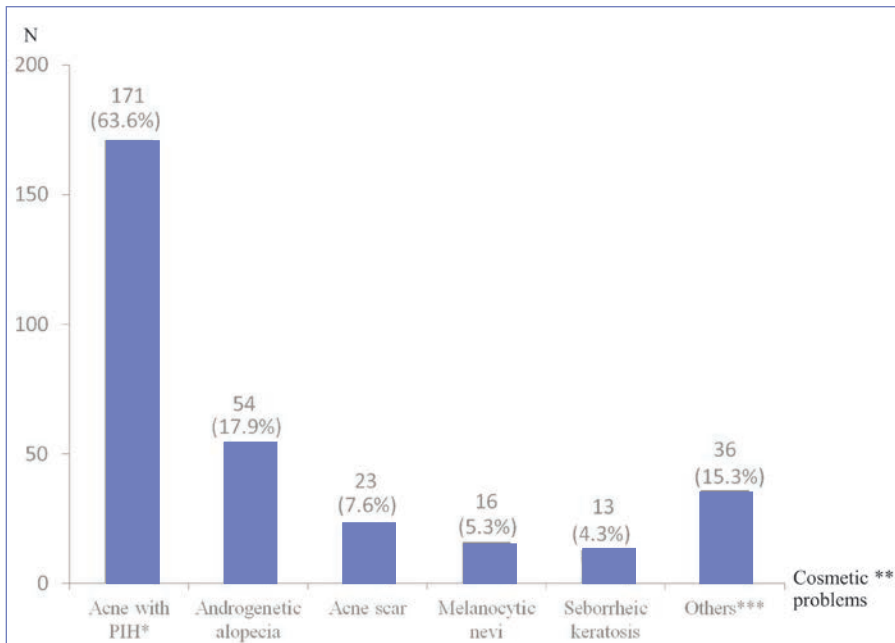
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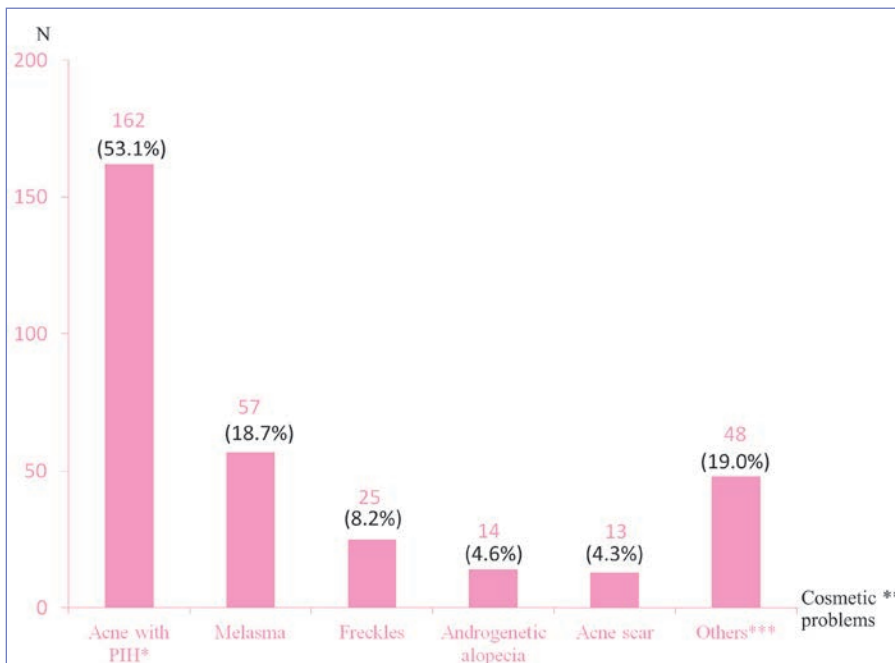
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**TABLE 1.** Demographic, socioeconomic, and baseline characteristics of participants

CHARACTERISTICS	NUMBER OF MALE PATIENTS (%)	NUMBER OF FEMALE PATIENTS (%)	P VALUE
MEAN AGE (YEARS)	31.41±12.50	34.56±12.01	0.002
HOMETOWN			
Bangkok	157 (52)	123 (40.3)	0.004
Suburban area	42 (13.9)	32 (10.5)	0.043
Rural area	103 (34.1)	150 (49.2)	0.001
SEXUAL PREFERENCE			
Heterosexual	219 (72.5)	249 (81.6)	0.007
Homosexual	26 (8.6)	11 (3.6)	0.010
Undetermined	57 (18.9)	45 (14.8)	0.035
EDUCATION BACKGROUND			
High school and associate's degree	52 (17.2)	52 (17)	0.086
Bachelor's degree	188 (62.3)	196 (64.3)	0.059
Master's degree	55 (18.2)	53 (17.4)	0.081
Doctorate degree	7 (2.3)	4 (1.3)	0.032
RELIGION			
Buddhist	287 (95)	299 (98)	0.023
Christian	8 (2.6)	3 (1)	0.078
Muslim	5 (1.7)	3 (1)	0.217
Other	2 (0.7)	0 (0)	0.247
ANNUAL INCOME (USD)			
Less than 3,500	97 (32.1)	48 (15.7)	<0.001
3,501–10,000	104 (34.4)	151 (49.5)	<0.001
10,001–18,000	64 (21.2)	72 (23.6)	0.476
More than 18,000	37 (12.3)	34 (11.1)	0.672
SMOKING	31 (10.3)	5 (2.9)	0.030
ALCOHOL CONSUMPTION	79 (26.2)	28 (9.2)	0.010
EXERCISE	270 (89.4)	233 (76.4)	0.010
SKIN CARE PRODUCTS - NO	18 (6)	1 (0.4)	<0.001
SKIN CARE PRODUCTS - YES	284 (94)	304 (99.7)	<0.001
Facial moisturizer	113 (37.4)	227 (74.7)	<0.001
Facial sunscreen	149 (49.3)	269 (88.2)	<0.001
Anti-wrinkle	34 (11.3)	55 (18)	0.018
Facial whitening	76 (25.2)	129 (42.3)	<0.001
Anti-acne	135 (44.7)	149 (48.9)	0.306
Facial cleanser	251 (83.1)	271 (88.9)	0.042
VITAMINS/SUPPLEMENTS - NO	158 (52.3)	131 (43)	0.021
VITAMINS/SUPPLEMENTS - YES	144 (47.7)	174 (57)	0.021
Vitamin B	42 (13.9)	48 (15.7)	0.526
Vitamin C	100 (33.1)	124 (40.7)	0.054
Vitamin E	21 (7)	26 (8.5)	0.469
Multivitamin	46 (15.2)	33 (10.8)	0.106
Collagen	28 (9.3)	47 (15.4)	0.022
Fish oil	42 (13.9)	33 (10.8)	0.248
Evening primrose oil	7 (2.3)	16 (5.2)	0.059



**FIGURE 1.** Common cosmetic problems in male patients. \*PIH: postinflammatory hyperpigmentation. \*\*One patient may have more than one cosmetic problem. \*\*\*Others category includes melasma, nevus of Hori, postinflammatory hyperpigmentation not related to acne, wrinkles, laxity, solar lentigines, sebaceous hyperplasia, and enlarged pores.



**FIGURE 2.** Common cosmetic problems in female patients. \*PIH: postinflammatory hyperpigmentation. \*\*One patient may have more than one cosmetic problem. \*\*\*Others category includes melasma, nevus of Hori, postinflammatory hyperpigmentation not related to acne, wrinkles, laxity, solar lentigines, sebaceous hyperplasia, and enlarged pores.

answers in one question) were excluded from the analysis. Analysis was performed using computer software (SPSS for Windows, v.18, IBM Corp., Armonk, New York, USA). A *p* value less than 0.05 was considered statistically significant.

## RESULTS

**Patient demographic data.** A total of 319 male and 324 female patients participated during the nine-month study. After the exclusion of incomplete questionnaires, responses from

302 male patients and 305 female patients were analyzed. The mean age of the male patients was  $31.41 \pm 12.50$  and female patients  $34.56 \pm 12.01$  years. Demographic and socioeconomic data (e.g., sexual preference, education background, occupation, annual income, smoking, alcohol consumption, exercise behaviors, and baseline characteristics including skin care product application and vitamins and/or other supplement consumption) are shown in Table 1.

The most common cosmetic problem in male patients was acne with postinflammatory hyperpigmentation (63.6%), followed by androgenetic alopecia (17.9%) and acne scarring (7.6%). In female patients, the most common problem was acne with postinflammatory hyperpigmentation (53.1%), followed by melasma (18.7%) and freckles (8.2%) (Figures 1 and 2).

### Patient behavior and attitude regarding cosmetic treatment.

The primary reason for seeking cosmetic treatment among both men and women was to improve appearance (men: 88.4%; women: 94.1%;  $p=0.013$ ). Career advancement (10.3%) was next in importance for men seeking cosmetic treatment. Peer pressure was another important reason for seeking cosmetic treatment among men (9.6%) compared to women (4.6%,  $p=0.01$ ) (Table 2).

The internet (e.g., websites, social networks) was the most popular source of information for cosmetic treatment for both sexes (men: 60.3%; women: 63.0%). However, men were more likely to obtain information on cosmetic services from close family members, partners, and/or spouses (men: 51.4%; women: 27.3%,  $p<0.001$ ), whereas women were more likely to obtain information from friends (women: 63.0%; men: 34.8%,  $p<0.001$ ). Magazines, books, television, and radio were lesser-used sources of information on cosmetic treatment information among men (Table 2).

Men preferred oral medications over other types of medication (men: 65.6%; women: 45.6%,  $p<0.001$ ), whereas women favored topical medication over other types of medication (women: 92.5%; men: 79.8%,  $p<0.001$ ). Among topical medications, men preferred the gel formulations most and ointment formulations least. Regarding the number of topical medications used, most men preferred using no more than three products (92.7%). Only 7.3 percent of the men indicated that they used more than three topical medications.

**TABLE 2.** Behaviors, attitudes, and factors influencing cosmetic treatment in male and female patients

CHARACTERISTICS	NUMBER OF MALE PATIENTS (%)	NUMBER OF FEMALE PATIENTS (%)	P VALUE
REASON FOR COSMETIC TREATMENT (MORE THAN ONE ANSWER IS POSSIBLE)			
Self appearance improvement	267 (88.4)	287 (94.1)	0.013
Celebrity influence	13 (4.3)	10 (3.3)	0.508
Career advantage	31 (10.3)	27 (8.9)	0.054
Peer pressure	29 (9.6)	14 (4.6)	0.010
Disease concern	29 (9.6)	36 (11.8)	0.058
Other	0 (0.0)	1 (0.3)	0.319
SOURCE OF COSMETIC TREATMENT INFORMATION (MORE THAN ONE ANSWER IS POSSIBLE)			
Internet	182 (60.3)	192 (63.0)	0.496
Close family members or partner/spouse	137 (45.4)	81 (26.6)	< 0.001
Friends	133 (44.0)	192 (63.0)	< 0.001
Magazine/book	58 (19.2)	84 (27.5)	0.015
Television/radio	45 (14.9)	48 (15.5)	0.775
FORM OF MEDICATION (MORE THAN ONE ANSWER IS POSSIBLE)			
Oral	198 (65.6)	139 (45.6)	< 0.001
Injection	69 (22.8)	57 (18.7)	0.206
Topical	241 (79.8)	282 (92.5)	< 0.001
TOPICAL FORMULATION (MORE THAN ONE ANSWER IS POSSIBLE)			
Ointment	56 (18.5)	62 (20.3)	0.578
Gel	141 (46.7)	143 (46.9)	0.961
Lotion	73 (24.2)	55 (18.0)	0.960
Cream	71 (23.5)	57 (18.7)	0.100
No difference	60 (19.9)	60 (19.7)	0.952
PACKAGING			
Cassette	34 (11.3)	48 (15.7)	0.106
Jar	17 (5.6)	21 (6.9)	0.523
Tube	176 (58.3)	176 (57.7)	0.886
No difference	75 (24.8)	65 (21.3)	0.303
PACKAGE COLOR			
White	100 (33.1)	77 (25.2)	0.033
Light blue	51 (16.9)	35 (11.5)	0.056
Blue	23 (7.6)	7 (2.3)	0.002
Pink	19 (6.3)	38 (12.5)	0.009
Green	17 (5.6)	10 (3.3)	0.160

**TABLE 2.** Behaviors, attitudes, and factors influencing cosmetic treatment in male and female patients, continued

CHARACTERISTICS	NUMBER OF MALE PATIENTS (%)	NUMBER OF FEMALE PATIENTS (%)	P VALUE
PACKAGE COLOR			
Yellow	12 (4)	14 (4.6)	0.708
Black	13 (4.3)	10 (3.3)	0.508
Grey	11 (3.6)	3 (1)	0.029
Red	3 (1)	4 (1.3)	0.741
Violet	6 (2)	5 (1.6)	0.748
NUMBER OF TOPICAL MEDICATIONS			
1	49 (16.2)	29 (9.5)	0.013
2	126 (41.7)	113 (37.0)	0.239
3	105 (34.8)	110 (36.1)	0.554
4	13 (4.3)	30 (9.8)	0.008
5	6 (2.0)	6 (2.0)	0.986
As many as necessary	3 (1.0)	17 (5.6)	0.078
CHOICE OF TREATMENT			
Resolve within 1 treatment with long recovery time	56 (18.5)	38 (12.5)	0.038
Gradual improvement with no need of recovery time	246 (81.5)	267 (87.5)	0.038
LASER TREATMENT			
Willing to	228 (75.8)	224 (80.0)	0.182
Refuse to	4 (1.3)	3 (1.0)	0.642
Not sure	70 (23.2)	58 (19.0)	0.209
INJECTION			
Willing to	187 (61.9)	166 (54.5)	0.061
Refuse to	17 (5.6)	26 (8.5)	0.164
Not sure	99 (32.5)	113 (37.0)	0.234
SEX OF DERMATOLOGIST			
Male dermatologist	60 (19.9)	19 (6.2)	< 0.001
Female dermatologist	86 (28.5)	122 (40.0)	0.030
Either sex	156 (51.6)	164 (53.6)	0.602
FACTORS INFLUENCING DERMATOLOGIST SELECTION			
Knowledge and experience	237 (78.5)	226 (74.1)	0.205
Possession of the new generation of equipment	48 (15.9)	64 (21.0)	0.106
Accessibility	14 (4.6)	13 (4.3)	0.824
Cost	3 (1.0)	2 (0.7)	0.646

Participants were asked to pick their preferred type of container for topical medications as well as their preferred color of packaging. More than half of the men (58.3%) indicated a preference for tube containers, with 33.1 percent preferring white packaging and 16.9 percent preferring light blue (Table 2).

Both sexes preferred gradual improvement with no downtime over complete resolution with one treatment and a long recovery period (men: 81.5%; women, 87.5%;  $p=0.038$ ). However, more men preferred the one treatment with longer recover time option than women (men: 18.5%; women: 12.5%,  $p=0.038$ ).

In answer to the question, "Are you willing to go through laser treatment if your dermatologist suggests that it would offer a better outcome?", most men ( $n=228$ , 75.8%) indicated they would undergo laser treatment, four (1.3%) indicated they would not undergo laser treatment, and 70 (23.2%) were undecided. Similar responses were observed regarding injectables: most men were willing to undergo injection for better results ( $n=187$ , 61.9%), 17 men (5.6%) were not willing to undergo injection, and 99 men (32.5%) were undecided (Table 2).

More than half (51.7%) of the men had no sex predilection when choosing a dermatologist, 28.5 percent preferred female dermatologists, and 19.9 percent preferred male dermatologists. For the men, knowledge and experience of the dermatologist was ranked as the most influential factor when choosing their doctor (78.5%), followed by the dermatologist's possession of new-generation equipment (15.9%), clinic accessibility (4.6%), and cost of treatment (1%). Similar results were found among the women regarding decision factors when selecting a dermatologist (Table 2).

## DISCUSSION

Research related to the subject of men and cosmetic treatment has been widely ignored until recently. According to Rieder et al,<sup>1</sup> cosmetic treatment among men has gained enormous attention in today's practices, however, as many men are changing their interests and habits. With this paradigm shift among those seeking cosmetic treatment, dermatologists should be aware of the biological differences between male and female skin. Understanding psychological aspects is

also important when cosmetically treating men versus women.

Our study shows that men are concerned about their health. They exercise (89.4%), avoid smoking (89.7%), and use skin care products daily (94.0%). Although these behaviors are seen less in men than in women, this observance contradicts a previous study<sup>3</sup> reporting that men neither use healthcare products nor seek dermatology services.

It is not surprising that improving appearance was the primary reason for seeking cosmetic services among both men and women. In our study, more women indicated that they were concerned about their appearance than men. This finding is different from surveys conducted in Western countries, which report that men are slightly more concerned about their appearance than women.<sup>4</sup> Results of our study also indicate that peer pressure is an influencing factor among men who seek cosmetic services, more often than women. It is possible that, for men, how they are perceived in their workplace (i.e., self-esteem, confidence) could be a strong motivator for seeking cosmetic treatment.

In our study, acne with postinflammatory hyperpigmentation, which often results in scarring, was the most common cosmetic problem for both sexes who sought dermatological treatment. This finding is consistent with other studies.<sup>5-7</sup> In Thailand, acne is classified as a cosmetic problem and is, therefore, not covered by health insurance. Among our study participants, the second most common cosmetic problem was androgenetic alopecia in men and pigmentary disorders (e.g., melasma, freckles) in women. This disparity might be attributed to hormonal differences between the sexes.

Our study also found that the internet, including websites and social networks, is often used by both sexes as a source of information on cosmetic treatment, as it is easily accessible and promotes communication with others. This finding is supported by previous studies that found that the internet and social media are influential sources of information on aesthetic medicine.<sup>8-12</sup> A recent study demonstrated that social media was used as a major source of information on cosmetic dermatology by 90 percent of men and 83 percent of women.<sup>13</sup> A major drawback to using the internet and social media as primary sources of healthcare information, however, is that anyone, including

individuals who are not licensed healthcare providers, can write and post information online, making information unreliable. Therefore, it is important for healthcare professionals to emphasize to their patients to only trust online healthcare information written by licensed healthcare professionals. Dermatologists should take advantage of the popularity of the internet and social media by posting evidence-based educational healthcare information online and encouraging patient-doctor communication.

In our study, close family members, including partners and spouses, were another important source of cosmetic information among male participants. Friends were a less important source of information for men. This might be due to the possibility that men are more comfortable discussing problems with close family members. Furthermore, it could be that some men find it embarrassing to discuss cosmetic matters with friends. This finding is in contrast to what our questionnaire revealed about women, who approached friends more often regarding cosmetic services than close family members. Our findings suggest that family members are a good choice for providing information on dermatological services or for communicating with male patients, while the mass media (e.g., television, radio, magazines) would not be an optimal source of information for men; less than 20 percent the male participants in this study reported mass media as a source of cosmetic treatment information. This finding is consistent with previous data reporting that television, radio, and magazines are not effective ways to advertise of skin care products to men.<sup>14</sup>

According to our study, men prefer oral medications over topical products. This might be because topical products require more time to apply, compared to swallowing medication, and can leave the skin feeling oily. However, if a topical product is needed, most men in our study reported that they prefer gel formulations over other types. This was similar in the women. The non-oily texture and quick absorption properties of gel formulations might be why they are preferred over the other types of formulations. Additionally, while liquid formulations and lotions are easily absorbed into the skin, they can spill out of their containers more easily than gel formulations, which might make them inconvenient when traveling. And alcohol-based liquids can cause an unpleasant stinging sensation.<sup>15</sup>



The men in our study preferred using no more than three topical treatments at a time. This finding is consistent with previous data, in which men tend to eschew complex and time-consuming skin treatment regimens.<sup>16</sup> Having too many products to use might also be too confusing and time-consuming, which might lead to poor adherence.

Regarding the preferred type of container for topical medication, the favorite choice among both sexes was tubes. This might be due to the ease in handling and transporting products packaged in tubes. It also might be due to the perception, as reported by our study sample, that medication in tubes is less easily contaminated than medication in other types of containers because patients do not have to dip their fingers into the medication during application, as they would with other types of packaging.

The color of packaging was also important for our male participants, with white being their preferred packaging color. Research on the psychology of color<sup>17</sup> has shown that white signifies lightness, goodness, freshness, and purity. White is also associated with hospitals, doctors, and reflex sterility, which might make patients feel that it is safe to use.<sup>17</sup> This is in contrary to the widely used black- and gray-colored packages in the men's skin care market. The black color represents elegance, power, and formality. It also denotes strength and authority.<sup>17</sup> Other preferred colors of medication packaging in male participants were in the "cool" color range (i.e., light blue and blue), which have positive associations. For example, light blue represents health, healing, and tranquility. Blue represents stability, confidence, and trust. Surprisingly, some of our male patients chose pink, which represents romance, love, and femininity and is a commonly used color to target women.<sup>17</sup> In our study, most of the men preferred a treatment regimen that offered gradual improvement with no downtime. This might be due to most participants being of working age (i.e., they have jobs). Therefore, it could be postulated that most of the men would go directly to work after treatment and would not want to be impeded by any lingering effects of treatment. Our finding that men tend to seek sources of cosmetic treatment information from close family members rather than from friends might shed light on why men preferred treatments that offered gradual improvement with no downtime over those that could be performed in one treatment but with

more downtime for recovery, as the downtime might elicit attention from peers, causing embarrassment. This finding corresponds with previous data showing that male patients mostly prefer treatments with minimal downtime.<sup>18–20</sup>

More than 50 percent of the male and female participants in this study had no preference over whether their dermatologist was a man or woman. Among patients who preferred one sex over the other, female dermatologists tended to be preferred over male dermatologists. We hypothesize that the participants might have believed that beauty and cosmetic treatments are a women's issue and that female dermatologists would be more knowledgeable of cosmetic issues. Level of knowledge and experience, followed by having new-generation equipment, being accessible, and being affordable were the primary reasons why participants would choose one dermatologist over another. This reflects that continuing medical education is important among dermatologists. Dermatologists should stay abreast of the latest treatments and technologies.

**Limitations.** There are some limitations to our study. First, subjects were recruited from a university-based hospital, which might explain why the experience of the dermatologist was considered the most important factor in dermatologist selection. Second, our study subjects were Asians, and attitudes regarding cosmetic services among people of other ethnicities could differ from those of our study sample. Thus, the results of this study might not be applicable to the global population.

## CONCLUSION

The differences between behaviors and attitudes regarding cosmetic dermatological treatment between men and women should not be overlooked by the clinician. This study reveals important points to consider when treating men who are seeking dermatological cosmesis. Our results indicate that oral medication is the most preferred type of treatment among men. For topical treatments, our results indicate that men prefer gel formulations over other types of formulations; prefer not to use more than three treatment products; prefer tube containers over other types of containers; and prefer white-colored packaging over other colors. And finally, our study indicates that knowledge and experience of the dermatologist are the most important factors among men when selecting a

physician. For optimal outcomes, dermatologists should consider the behaviors and attitudes of each individual patient before devising a treatment plan.

## REFERENCES

1. Rieder EA, Mu EW, Brauer JA. Men and cosmetics: social and psychological trends of an emerging demographic. *J Drugs Dermatol*. 2015;14(9):1023–1026.
2. Elsner P. Overview and trends in male grooming. *Br J Dermatol*. 2012;166 Suppl 1: 2–5.
3. Pinkhasov RM, Shteynshlyuger A, Hakimian P, et al. Are men shortchanged on health? Perspective on life expectancy, morbidity, and mortality in men and women in the United States. *Int J Clin Pract*. 2010;64(4):465–474.
4. Cheng FS OC, Ting DH. Factors affecting consumption behavior of metrosexual toward male grooming products. *Int Rev Bus Res Papers*. 2010;6(1):574–590.
5. White GM. Recent findings in the epidemiologic evidence, classification, and subtypes of acne vulgaris. *J Am Acad Dermatol*. 1998;39(2 Pt 3): S34–S37.
6. Goulden V, Stables GI, Cunliffe WJ. Prevalence of facial acne in adults. *J Am Acad Dermatol*. 1999;41(4):577–580.
7. Bhate K, Williams HC. Epidemiology of acne vulgaris. *Br J Dermatol*. 2013;168(3):474–485.
8. Schlichte MJ, Karimkhani C, Jones T, et al. Patient use of social media to evaluate cosmetic treatments and procedures. *Dermatol Online J*. 2015;21(4). pii: 13030/qt8826r65x.
9. Griffiths F, Cave J, Boardman F, et al. Social networks—the future for health care delivery. *Soc Sci Med*. 2012;75:2233–2241.
10. Travers RL. Social media in dermatology: moving to Web 2.0. *Semin Cutan Med Surg*. 2012;31(3):168–173.
11. George DD, Wainwright BD. Dermatology resources on the internet. *Semin Cutan Med Surg*. 2012;31(3):183–190.
12. Jensen JD, Dunnick CA, Arbuckle HA, et al. Dermatology information on the Internet: an appraisal by dermatologists and dermatology residents. *J Am Acad Dermatol*. 2010;63(6):1101–1103.
13. Ross NA, Todd Q, Saedi N. Patient seeking behaviors and online personas: social media's role in cosmetic dermatology. *Dermatol Surg*. 2015;41(2):269–276.
14. Schlessinger J. Skin care for men and its marketing. *Dermatol Ther*. 2007;20:452–456.
15. Vachiramon V, Suchonwanit P, Thadanipon K. Melasma in men. *J Cosmet Dermatol*. 2012;11:151–157.
16. Fried RG. Esthetic treatment modalities in men: psychologic aspects of male cosmetic patients. *Dermatol Ther*. 2007;20:379–384.
17. Parker R. The meaning of color. Available at: [https://resources.oncourse.iu.edu/access/content/user/treagan/Filemanager\\_Public\\_Files/meaningofcolors.html/](https://resources.oncourse.iu.edu/access/content/user/treagan/Filemanager_Public_Files/meaningofcolors.html/). Accessed June 8, 2017.
18. de Meo M. Fillers. In: de Meo M, Rzany B, eds. *The Male Patient in Aesthetic Medicine*. 1st ed. Heidelberg: Springer; 2009: 160.
19. Keaney T. The increasing needs of the male aesthetic patient. Available at: <https://www.the-dermatologist.com/content/increasing-needs-male-aesthetic-patient>. Accessed June 8, 2017.
20. Chasteen AL, Bashir NY, Gallucci C, Visekruna A. Age and antiaging technique influence reactions to age concealment. *J Gerontol B Psychol Sci Soc Sci*. 2011;66(6):719–724. **JCAD**