

Facial Aesthetic Priorities and Concerns: A Physician and Patient Perception Global Survey

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Abstract

Background: Minimally invasive and noninvasive facial aesthetic treatments are increasingly popular, and a greater understanding of patient perspectives on facial aesthetic priorities is needed.

Objectives: The authors surveyed facial aesthetic concerns, desires, and treatment goals of aesthetically conscious men and women, and physicians, in 18 countries.

Methods: This was a global, internet-based survey on desired appearance and experiences with, or interest in, facial aesthetic treatments. Eligible respondents were aesthetically conscious adults (21–75 years). Eligible aesthetic physicians were required to see ≥ 30 patients per month for aesthetic reasons, have 2 to 30 years of experience in clinical practice, and spend $\geq 70\%$ of their time in direct patient care.

Results: A total of 14,584 aesthetically conscious adults (mean age, 41 years; 70% women) and 1315 aesthetic physicians (mean age, 45 years; 68% men) completed the survey. Most respondents (68%) reported that aesthetic procedures should be sought in their 30s to 40s; physicians recommended patients seek treatment earlier. Respondents expressed greatest concern over crow's feet lines, forehead lines, facial skin issues, hair-related concerns, and under-eye bags or dark circles; in contrast, physicians tended to underestimate concerns about under-eye bags or dark circles, mid-face volume deficits, and skin quality. Although both physicians and respondents cited cost as a major barrier to seeking aesthetic treatments, respondents also emphasized safety, fear of injections or procedure-related pain, and concern about unnatural-looking outcomes.

Conclusions: This global survey provides valuable insight into facial aesthetic concerns and perspectives that may be implemented in patient education and consultations to improve patient satisfaction following aesthetic treatments.

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Minimally and noninvasive facial aesthetic procedures are increasing in popularity worldwide.^{1,3} Almost 90% of the 15.6 million cosmetic procedures conducted by plastic surgeons in 2020 were minimally invasive (eg, botulinum toxin or soft tissue filler injections, chemical peels), and an estimated \$16.7 billion was spent on aesthetic treatments during 2020 in the United States alone.¹ Worldwide, the projected worth of the medical aesthetic market is expected to be almost \$125 billion by 2028.⁴ A recent 2019 survey of 3465 consumers by the American Society of Dermatologic Surgery reported that approximately 70% of consumers were considering a cosmetic procedure, with the goal of achieving greater confidence and to appear younger or more attractive.⁵

As aesthetic medicine continues to grow in popularity, patients' views and input in determining success of aesthetic treatment have grown in importance. Technological advances and widespread use of social media have increased awareness of diverse standards of beauty and aesthetic outcomes, ultimately broadening definitions of beauty and attractiveness as well as consciousness of treatment goals. There are limited data comparing and contrasting physician and patient perspectives on both facial aesthetic concerns and prioritization in addressing these aesthetic concerns.

The objective of this survey was to examine and understand facial aesthetic priorities, concerns, and treatment goals across varied geographical regions in aesthetically conscious adult respondents and physicians and to apply these insights toward optimizing practitioner–patient aesthetic consultation, treatments, and ultimately patient satisfaction.

METHODS

Study Design

A global, internet-based, anonymous, cross-sectional Beauty Image Assessment Survey was administered by Ipsos Healthcare (Mahwah, NJ), an independent global market research and consulting firm, who employed large, opt-in databases of potential survey respondents. The survey was sponsored by Allergan plc (Irvine, CA) prior to its acquisition by AbbVie Inc. The 20- to 30-minute survey contained questions focused on desired appearance, treatment goals, and experiences with and/or interest in aesthetic treatments, with more than 40 aspects of the face and body surveyed. Data were collected between October 25 and November 29, 2018 from survey participants and between November 9 and December 17, 2018 from physician participants. As compensation, survey participants accumulated points to purchase items out of a catalog; based on the length of the survey, aesthetically conscious respondents earned points worth approximately

\$3 to \$4USD and physicians were compensated \$13 to \$92USD depending on their location.

This market research study complied with the EphMRA code of conduct and the international code of marketing and social research practice. Participants were provided with information on data collection and privacy related to the survey, including responses being anonymized and the ability to leave the survey at any time. Participants had to agree to the provided terms in order to complete the survey.

Survey Participants

Aesthetically Conscious Survey Respondents

The survey was administered to adults aged 21 to 65 years (United States) or 21 to 75 years living in Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Mexico, Russia, Saudi Arabia, South Korea, Spain, Taiwan, Turkey, and the United Kingdom. Within each country, a maximum of 30% male and 70% female respondents were eligible to complete the survey. All survey respondents had to meet the criteria for being “aesthetically conscious,” wherein the respondents had to agree with both of the following statements: “Looking good at any age is important to me” and “I am willing to go to a professional to improve my appearance.” Aesthetically conscious survey respondents also had to agree with 1 or more of the following statements: “I care about my overall appearance,” “I am willing to invest in my appearance,” and/or “I am prepared to invest in my appearance.”

Physician Respondents

Physician respondents included plastic surgeons, dermatologists, and other physicians focused on aesthetic medicine. Eligible physicians had to meet criteria that included seeing ≥ 30 patients per month for aesthetic reasons, having 2 to 30 years of experience in clinical practice, and spending $\geq 70\%$ of their time in direct patient care.

Data Analyses

Data presented in this manuscript include results from the survey focused on facial aesthetics only. Results are summarized descriptively. Aesthetically conscious survey respondents were asked to indicate their level of concern for 26 aspects of their face on a 6-point Likert scale from “not at all concerned” to “extremely concerned.” Composite scores to describe the level of concern that survey respondents had for these facial aspects were generated by adding the percentages of respondents rating “extremely concerned” and “very concerned” for each feature. Physician respondents were asked to rank the top 5 concerns and related treatments requested by patients. Composite scores were generated for each feature by

adding the percentage of physicians ranking the concern as the top or second-most common concern for which patients request treatment. Note that physician respondents were not asked to differentiate between top concerns and related treatment requests from female vs male patients.

To assess their most concerning facial features, survey respondents were provided a list of 26 facial features and asked to rank the top 5 aspects that were of highest concern to them. Using the same list of 26 facial features, physician respondents were asked to rank the top 5 facial concerns most often discussed with patients, and physicians were not asked to differentiate between concerns discussed with male vs female patients. The percentages of survey respondents or physicians ranking each feature (eg, forehead lines) 1 to 3 were added together to create a composite value for comparison with other features.

RESULTS

Demographics

This analysis included data from 14,584 aesthetically conscious adult survey respondents (30% men, 70% women), with the largest number of participants from the United States ($n = 2038$) followed by China ($n = 2012$), Australia ($n = 612$), the United Kingdom ($n = 613$), Canada ($n = 612$), and Russia ($n = 612$). Regional differences based on geographical location were observed and may be explored in a future publication. Demographics data for the aesthetically conscious survey respondents and physician respondents are summarized in [Tables 1](#) and [2](#). A total of 14,584 survey respondents met inclusion criteria for being aesthetically conscious, as defined in the Methods, with 100% agreeing with “Looking good at any age is important to me” and “I am willing to go to a professional to improve my appearance” and >70% agreeing or strongly agreeing with the statements “I care about my overall appearance,” “I am willing to invest in my appearance,” and/or “I am prepared to invest in my appearance” ([Figure 1](#)). The mean (\pm standard deviation [SD]) age of aesthetically conscious survey respondents overall was 41 (± 12) years, with 41.8% of respondents aged 21 to 35 (“Millennial”; $n = 6099$), 42.0% aged 36 to 55 (“Generation X”; $n = 6125$), and 16.2% of respondents aged 56 or older (“Baby Boomer”; $n = 2360$).

Aesthetically conscious survey respondents were surveyed about prior aesthetic treatments. The most frequently reported aesthetic treatments received in the year prior to the survey included facials (47%), professional-grade topical skincare products (37%), dermaplaning (20%), eyelash growth treatments (16%), professional in-office teeth whitening (15%), photorejuvenation (12%), and laser skin resurfacing (10%). Nine percent (9%) and

7% of respondents reported the use of botulinum neurotoxin and dermal fillers, respectively, in the year prior to the survey.

A total of 1315 physicians met the inclusion criteria for the survey. Aesthetic physicians who met inclusion criteria had a mean (\pm SD) age of 45 (± 9) years and were 68% male and 32% female. Physicians who completed the survey predominately specialized in dermatology (41%) and plastic surgery (22%), with the remaining in family practice/medicine or general practice (13%). Physicians reported that the majority of their patients were women (75.2%). Surveyed physicians saw an average of 415.4 total patients per month, with 41% (172) of those visits being for aesthetic reasons. Of the 172 aesthetic patients seen in a typical month, 57% ($n = 98$) were current or existing aesthetic patients. Of the 43% ($n = 74$) new aesthetic patients, 68% ($n = 50$) of new aesthetic consults progressed to aesthetic treatment, whereas 32% ($n = 24$) of new aesthetic consults did not convert into patients ([Figure 2](#)).

Top Facial Aesthetic Terms

The terms smooth (female respondents: 6.4%; physicians: 8.5%), beautiful (female respondents: 5.8%; physicians: 11.8%), and soft (female respondents: 4.1%; physicians: 8.8%) were among the top 5 terms both female survey respondents and physicians used to describe female facial beauty. Natural (6.2%) and clean (4.2%) were also employed frequently by female survey participants, and symmetrical (9.4%) and delicate (5.5%) were frequently employed by physicians ([Figure 3](#)).

In describing male facial attractiveness, handsome (male respondents: 8.9%; physicians: 10.4%) was employed most frequently by both physicians and male respondents alike. Other terms commonly used by male respondents included clean (6.6%), beard (4.4%), and smile (3.2%). Physicians frequently used symmetrical (9.4%), strong (9.2%), and masculine (9.1%) to describe male facial attractiveness ([Figure 4](#)).

Age to Seek Aesthetic Treatments

The majority (approximately 70%) of surveyed physicians indicated that their patients should seek aesthetic treatments in their 20s and 30s, whereas, overall, aesthetically conscious respondents felt that aesthetic treatments should be sought in their 30s and 40s ([Figure 5](#)). Among aesthetically conscious female survey respondents, 32% indicated that they should seek treatment in their 30s, and 37% reported that they should seek treatment in their 40s. Most male participants also indicated that aesthetic treatments should be sought in their 30s (28%) and 40s (38%). Both Millennials and Generation X respondents reported that aesthetic treatments should be sought in their 30s (Millennial: 45%; Generation X: 23%) and 40s

Table 1. Survey Participant Numbers

Countries represented	Aesthetically conscious survey participants			Physicians
	Total	Male	Female	Total
Total	14,584	4409	10,175	1315
United States	3028	906	2122	76
United Kingdom	613	185	428	76
Australia	612	187	425	60
Brazil	611	190	421	76
Canada	612	188	424	76
China	2012	607	1405	75
France	610	182	428	75
Germany	608	184	424	76
India	611	187	424	75
Italy	611	184	427	75
Japan	605	183	422	75
Mexico	609	185	424	75
Russia	612	186	426	75
Saudi Arabia	399	120	279	62
South Korea	610	185	425	75
Spain	611	184	427	77
Taiwan	604	181	423	61
Turkey	606	185	421	75

Table 2. Demographics

Parameter	Aesthetically conscious survey participants	Physicians
Participated in survey, no.	14,584	1315
Sex		
Female, no. (%)	10,175 (70)	419 (32)
Women treated by physician respondents, %	NA	75.2
Age		
Mean age (SD), y	41 (12)	45 (9)
Respondent age group, no. (%)		
Millennial (21-35 y)	6099 (41.8)	NA
Generation X (36-55 y)	6125 (42.0)	NA
Baby Boomer (≥56 y)	2360 (16.2)	NA
Age groups treated by physician respondents, y (%)		
<18	NA	2
18-35	NA	34
36-55	NA	50
≥56	NA	14
Top 3 physician respondent specialties, no. (%)		
Dermatologist	NA	538 (41)
Plastic surgeon	NA	205 (22)
Family practice/family medicine/ general practice/PCP	NA	167 (13)

PCP, primary care provider; SD, standard deviation.

(Millennial: 32%; Generation X: 45%). In contrast, Baby Boomers reported that aesthetic treatment should be sought in the 40s (33%) and 50s (36%).

Facial Features of High or Extreme Concern

When asked to indicate their level of concern for each of approximately 25 aspects of their face, survey respondents most frequently indicated being very or extremely concerned with under-eye bags and dark circles (36%), crow's feet lines (CFL; 34%), and forehead lines (FHL; 31%). Other features that respondents indicated high/extreme levels of concern over included facial skin issues (texture or uneven skin tone [31%] and acne or redness [30%]), hair-related concerns (receding hairline, thinning hair, or pattern baldness [30%]), sagging skin on face or neck (30%), and glabellar lines (GL; 28%; [Figure 6](#)). When surveyed physicians were queried about the most frequent

concerns mentioned and/or treatments requested by their patients, they reported CFL (21%), FHL (20%), and GL (15%) as the areas most frequently treated because they were of most concern to the patients ([Figure 6](#)).

Looking at facial features for which aesthetically conscious respondents expressed high or extreme levels of concern, Millennials (aged 21-35 years) reported higher levels of concern (ie, ratings of very concerned or extremely concerned) than Generation X (aged 36-55 years) and Baby Boomers (aged 56 years or older) for most facial aesthetic concerns ([Figure 7](#)). Although all age groups indicated high/extreme levels of concern over CFL and under-eye bags or dark circles, facial skin issues were more frequently indicated as being very or extremely concerning by Millennials (approximately 39%) than Generation X (approximately 31%) or Baby Boomers (approximately 16%). Additionally, fewer Generation X survey respondents (8%)

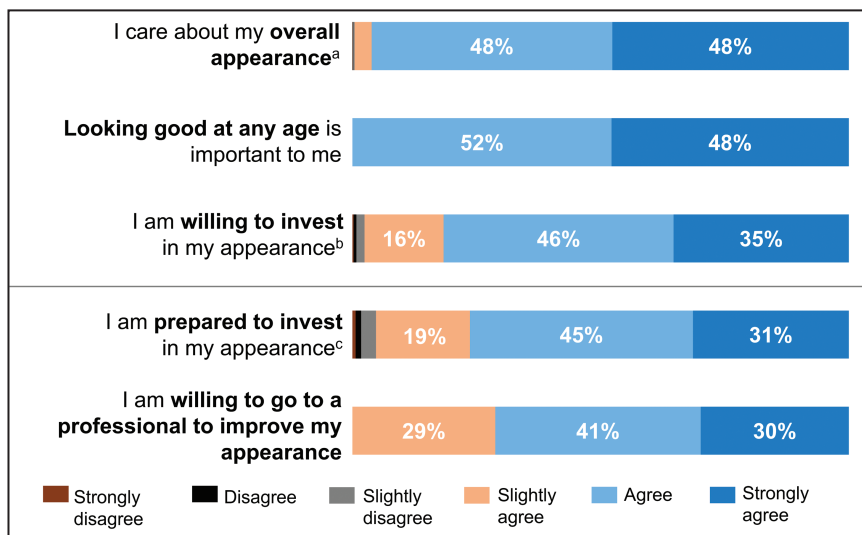


Figure 1. “Aesthetically conscious” adult respondent indicators. Percentage of respondents agreeing with the “aesthetically conscious” eligibility criteria. ^a3% of participants slightly agreed that they cared about their overall experience. ^b2% of participants slightly disagreed with being willing to invest in their appearance. ^c1% and 3% of participants disagreed or slightly disagreed with being prepared to invest in their appearance. Note: <1% of participants strongly disagreed on any of the above questions. Percentages may not add up to exactly 100% because of rounding.

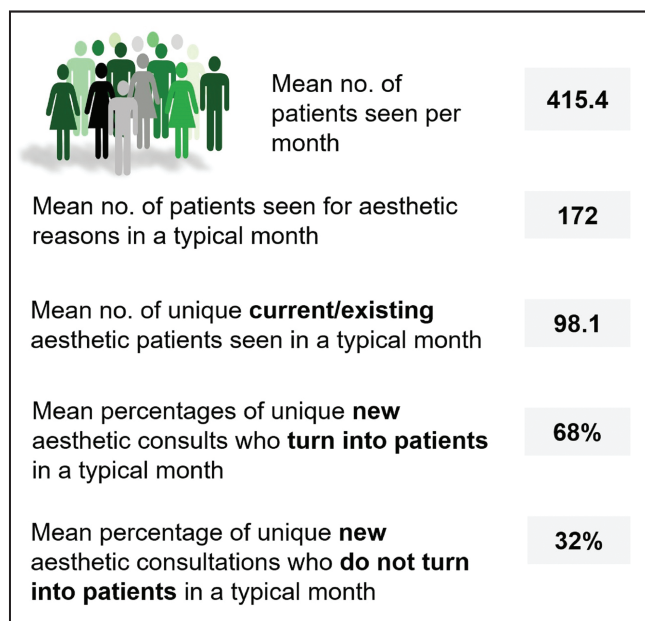


Figure 2. Physician experience. Aesthetic physician experience for surveyed physicians (n = 1315).

rated eyelid folds/creases as a feature they had high/extreme levels of concern with compared with >20% of both Millennial and Baby Boomer respondents (Figure 7A). The feature most frequently indicated as being very or extremely concerning for female respondents was under-eye bags or dark circles (38%). In contrast, male respondents most frequently indicated high or extreme levels of concern with hair-related issues (35%; Figure 7B).

Ranking of Facial Aesthetic Concerns

Aesthetically conscious survey respondents were provided the same approximately 25 facial aspects and asked to rank the top 5 aspects of highest concern. Overall, the aspects most frequently ranked as being among the top 5 facial aesthetic concerns were CFL, FHL, GL, under-eye bags or dark circles, and lack of volume/definition in the cheekbones (Figure 8). These same concerns were ranked among the top 5 by both male and female respondents and were consistent across all generations in the aggregate.

Respondents between the age of 21 and 35 years (Millennials) ranked CFL, FHL, GL, under-eye bags or dark circles, and mid-face volume deficits as among their top 5 facial aesthetic concerns, regardless of gender (data not shown). Among aesthetically conscious female respondents over the age of 36 years (grouped as Generation X and Baby Boomers), while CFL, FHL, GL, and under-eye bags were also among the top 5 concerns, lower facial lines took precedence over mid-face volume deficits as a top 5 concern (data not shown). However, male respondents between the ages of 36 and 55 years (Generation X) rated hair-related issues (eg, receding hairline, thinning hair, pattern baldness) among their top 5 concerns more often than a desire to add cheekbone volume. Additionally, hair-related issues were most frequently rated among top 5 concerns among male respondents over the age of 55 years (Baby Boomers), along with CFL, FHL, under-eye bags or dark circles, and GL (data not shown).

In line with the responses from survey respondents, the surveyed physicians reported CFL and FHL as the facial

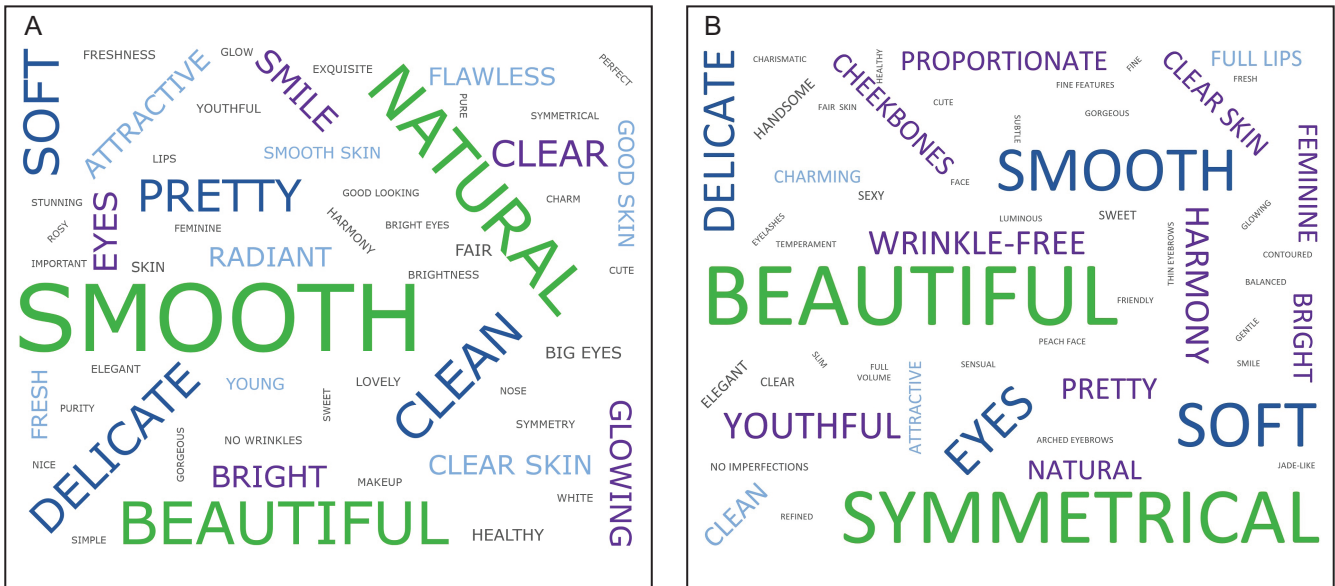


Figure 3. Terms used to describe female facial beauty. Terminology used by aesthetically conscious female survey respondents (A; n = 10,175) and all physicians (B; n = 1315) to describe female facial beauty. Text size corresponds with proportion of respondents or physicians listing each term as a descriptor.

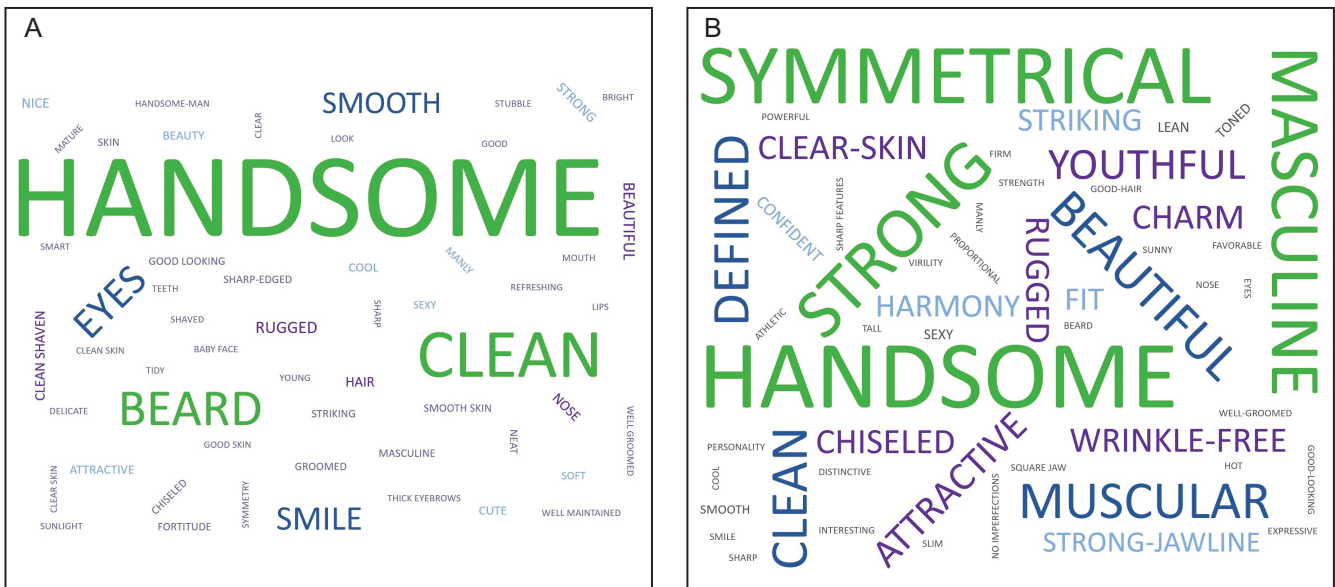


Figure 4. Terms used to describe male facial attractiveness. Terminology used by aesthetically conscious male survey respondents (A; n = 4409) and all physicians (B; n = 1315) to describe male facial attractiveness. Text size corresponds with proportion of respondents or physicians listing each term as a descriptor.

concerns most frequently discussed with patients, regardless of patient gender or age, followed by skin quality issues (ie, acne or redness), GL, and under-eye bags or dark circles. Desire for greater cheekbone volume to obtain a contoured facial shape was rated as a top concern by 25% of survey respondents, whereas only 3% of physicians reported discussing adding volume to cheekbones with patients. Regarding concern for under-eye bags and dark

circles, only 16% of physicians reported discussing this concern, whereas 31% of aesthetically conscious respondents rank it as 1 of their top 5 concerns.

Barriers to Aesthetic Treatment

Physicians ranked patient treatment goals, effectiveness of treatments, safety, cost, and recovery time/requirements among their top 5 initial consultation topics. Barriers

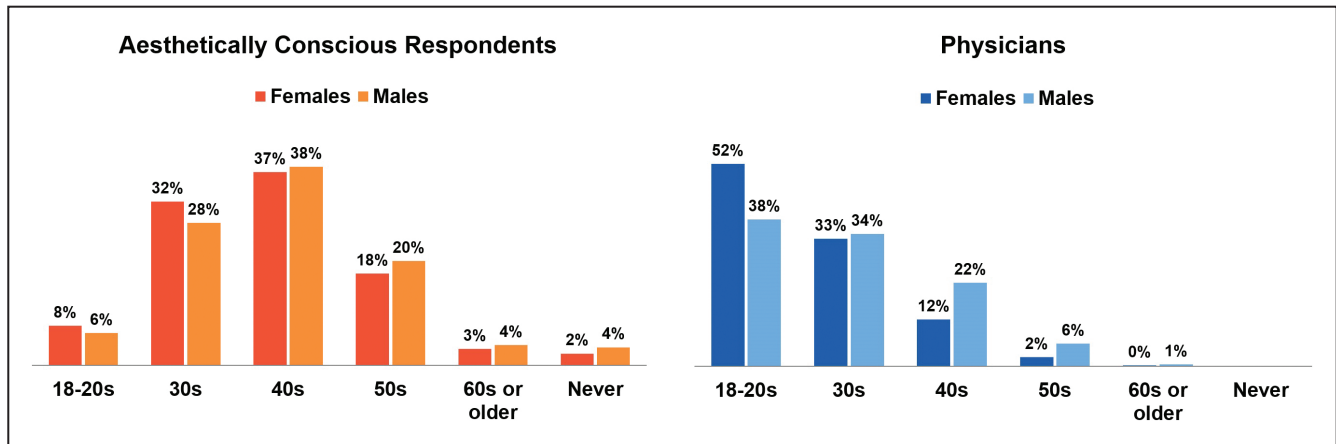


Figure 5. Age when individuals should seek aesthetic treatments. Proportion of aesthetically conscious respondents and physicians agreeing with which age is most appropriate to seek out aesthetic/cosmetic treatment from a physician/professional.

to seeking aesthetic treatment, as ranked by both male and female survey respondents, included fear of needles, injections, or pain; safety; cost; and concern for procedures creating an unnatural look. Although both surveyed physicians (53%) and respondents (61%) rated cost similarly as a barrier to seeking aesthetic treatments, respondents cited safety, fear of injections or procedure-related pain, and concern of unnatural-looking outcomes as barriers to treatment much more than physicians (Figure 9).

DISCUSSION

This was a global, internet-based survey of more than 14,000 aesthetically conscious adults (ie, those willing and prepared to invest in their appearance) and 1315 physicians in aesthetic practice. There were many areas of agreement between respondents and physicians regarding descriptors of beauty and aesthetic concerns as well as areas of divergence that provide an opportunity for improving patient–doctor consensus surrounding treatment goals and patient education in aesthetic medicine.

In general, similar terminology was employed by physicians and respondents to describe facial aesthetic ideals. Both physicians and female respondents frequently employed terms such as beautiful, smooth, and soft to describe female facial beauty, and male facial attractiveness was commonly described as handsome by physicians and male respondents. Terms used to describe non-binary attractiveness were not assessed in this study.

Physician and participant responses diverged in some areas of defining facial beauty. Although the terms employed by both physicians and female survey respondents

to describe female facial beauty were similar (smooth, beautiful, soft), female survey respondents employed natural and clean more often than physicians, who favored terms such as symmetrical and delicate. Some of the female facial beauty descriptors favored by physicians may suggest an emphasis on shape, whereas the terms cited by female respondents is likely indicative of the growing importance of desirable skin quality.⁶ Indeed, treatments targeting improvements in skin quality were among the most popular minimally invasive procedures in 2020, behind only neurotoxin and dermal filler injections.¹ Further, consumers spent over \$500 million at plastic surgeons on skin-focused treatments (eg, resurfacing, laser treatments, tightening, chemical peels, etc).⁷

Descriptions of male facial attractiveness frequently included handsome from both the male respondents' and physicians' perspective. In addition, male respondents described facial attractiveness using clean, beard, and smile, whereas physicians emphasized symmetrical, strong, and masculine. These differences used to describe aesthetic ideals provide an opportunity for physicians to use terminology that resonates with patients during consultations or in patient education.

In line with previous studies, multiple aspects of the periorbital area were highlighted as major aesthetic concerns by respondents,^{8,9} suggesting that the periorbital area is important in perceptions of beauty and attractiveness, particularly for women. Aesthetically conscious survey respondents most frequently indicated high or extreme levels of concern with CFL and FHL; physicians also reported that CFL and FHL were most commonly requested by patients for treatment. Similarly, CFL, FHL, and GL were ranked in the top 5 aesthetic concerns for respondents

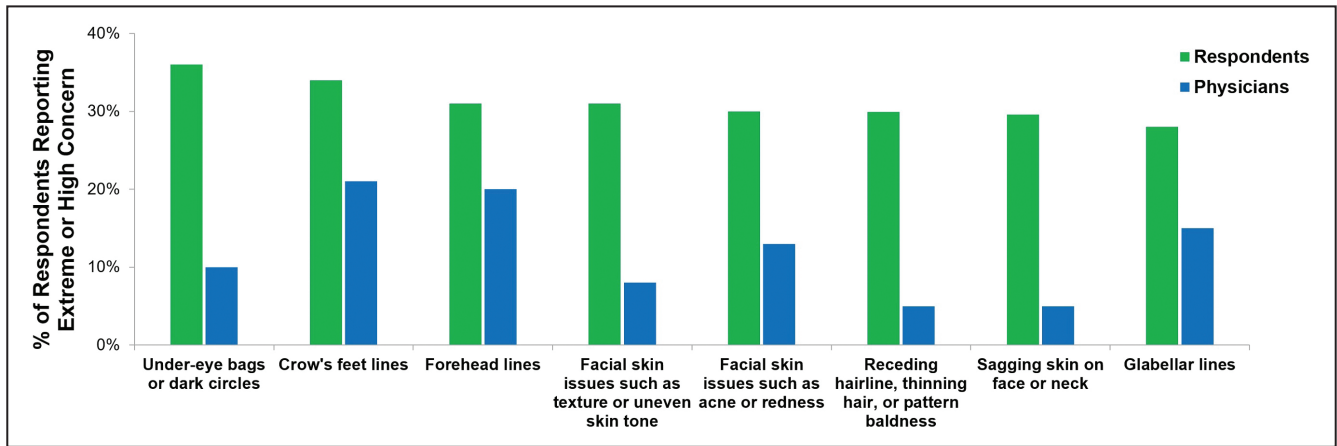


Figure 6. Facial features indicated as being very or extremely concerning. Proportion of aesthetically conscious survey respondents reporting very high or extreme levels of concern with aesthetic aspects of their face. Composite scores to describe features of high/extreme concern for survey respondents were generated by adding the percentages of respondents rating “extremely concerned” and “very concerned” for each feature. Physician respondents were asked to rank the top 5 concerns and related treatments requested by patients. Composite scores were generated for each feature by adding the percentage of physicians ranking the concern as the top or second-most common concern for which patients request treatment.

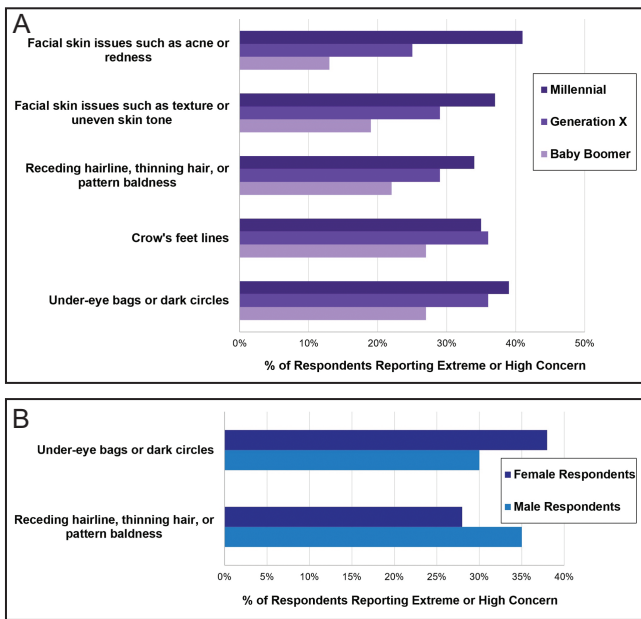


Figure 7. Generational and gender differences in facial features of very high or extreme concern. Proportion of aesthetically conscious survey respondents reporting very high or extreme levels of concern with aesthetic aspects of their face by age (A) and gender (B).

and were also in the physicians’ top 5 concerns most frequently discussed with patients. Both surveyed groups also viewed cost as a major barrier to seeking aesthetic treatment.

Although surveyed physicians and aesthetically conscious respondents rated upper facial lines as important

aesthetic concerns, physicians underestimated the importance of under-eye bags and dark circles, which was the feature most frequently indicated as being very or extremely concerning for aesthetically conscious survey respondents. This disconnect was somewhat unexpected given prior studies demonstrating the importance of the eye area and high levels of patient satisfaction with non-surgical tear trough treatments as well as the increased focus of research on understanding the etiology, assessment, and treatment of this concern.⁸⁻¹³ Physicians also underestimated patient concerns involving facial skin issues, mid-face volume deficits, and hair-related issues. The disconnect between physicians and patients on facial features for which respondents expressed a high level of concern is particularly noticeable in male respondents; 35% of aesthetically conscious male respondents indicated hair-related issues (eg, receding hairline, pattern baldness) as an area of high or extreme levels of concern, whereas only 5% of physicians reported that male patients presented with this concern and requested treatment for it. Although rates of hair transplantation among men appear to be decreasing, a growing number of other modalities (eg, platelet-rich plasma therapy, topicals, microneedling, etc) are being used and investigated for their effectiveness in improving hair growth.^{7,14,15}

Gender and generational differences were also present in the level of concern that survey respondents had over their facial aesthetic features. Female respondents most frequently indicated under-eye bags and dark circles as areas associated with high or extreme levels of concern, whereas male respondents most frequently expressed high or extreme levels of concern over receding

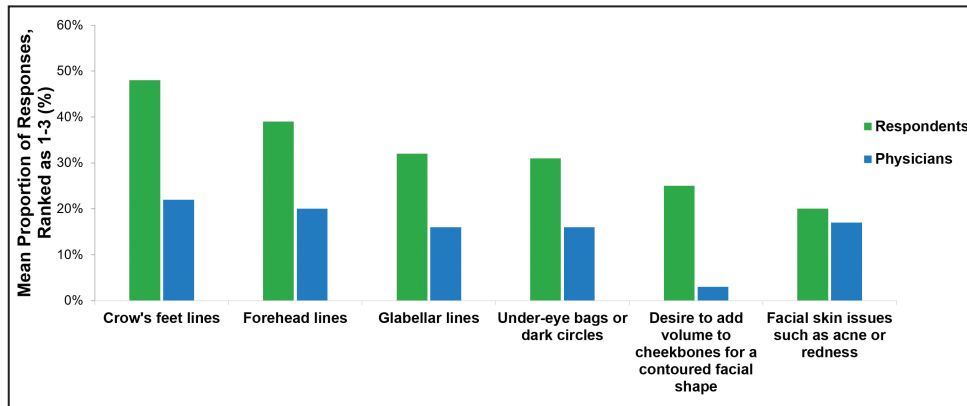


Figure 8. Top 5 facial aesthetic concerns. Mean proportion of aesthetically conscious survey respondents ranking each facial aesthetic concern as among the top 5 aspects of the highest concern to them and mean proportion of physicians ranking each concern among the top 5 concerns most often discussed with patients. The percentages of survey respondents or physicians ranking each feature (eg, forehead lines) 1 to 3 were added together to create a composite value for comparison with other features.

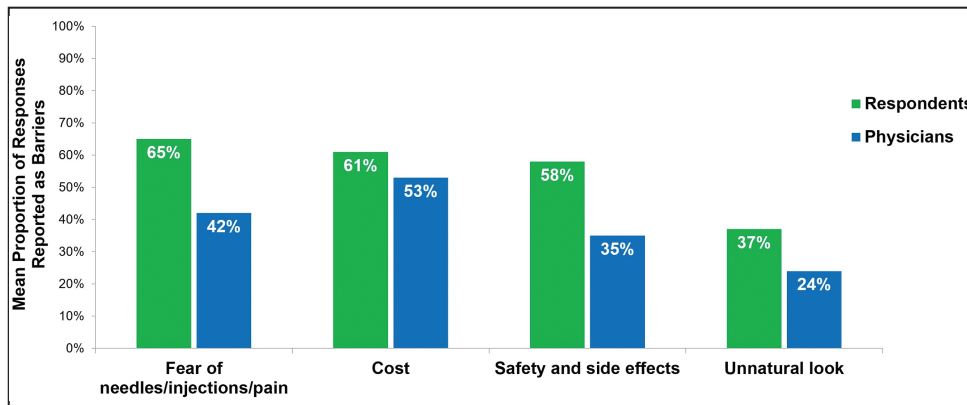


Figure 9. Barriers to seeking aesthetic treatments. Proportion of aesthetically conscious survey respondents and physicians agreeing with each category as a barrier to seeking aesthetic treatment.

hairline, thinning hair, or pattern baldness. Among survey respondents aged 36 years or older (Generation X and Baby Boomers), the most frequently indicated features associated with high or extreme levels of concern were CFL and under-eye bags or dark circles. Millennials, in contrast, most frequently expressed being very or extremely concerned about skin quality and facial skin issues (eg, acne, redness). Overall, these findings provide practitioners in aesthetic medicine with information that provides areas of educational focus, helps focus patient consults, and provides greater alignment between patients' desires and treatments offered, with the ultimate goal of improving patient satisfaction.

Another area of disconnect between physicians and respondents is related to the timing of aesthetic treatments. Physicians recommended that patients begin seeking aesthetic treatments in their 20s and 30s, whereas most

aesthetically conscious respondents surveyed indicated that they should begin seeking aesthetic treatments in their 30s and 40s. This disparity may be due to professional identification of the signs of aging and aesthetic concerns by physicians as compared to patients. Changing perceptions of aging across the lifespan may also contribute to respondents' perception that aesthetic treatments should be sought later in life, as what constitutes older age—and perhaps when visible signs of aging warrant physician intervention—shifts as individuals age.¹⁶ Indeed, whereas survey respondents in both Millennial and Generation X groups reported the 30s and 40s as the age to seek aesthetic treatment, Baby Boomers reported that aesthetic treatment should be sought in the 40s and 50s. Alternatively, these findings may be explained as aesthetically conscious respondents viewing aesthetic treatments requiring medical attention as corrective procedures,

whereas physicians may view them as preventive in nature. More studies demonstrating preventive, rather than corrective, effects of aesthetic treatments (eg, botulinum toxin injections) are needed. Finally, physicians are aware of the efficacy of non-invasive aesthetic treatments and intervention at the time of initial concern could result in improved patient satisfaction. Physician experience with successfully treating mild-to-moderate vs more advanced stages of skin aging may underlie their proclivity to recommend treatments at an earlier age, as opposed to patients who may have higher expectations of successful aesthetic outcomes that lead them to seek treatment at more advanced stages of aging. Patient education should also place a greater emphasis on preventive methods available to address early signs of aging, the relative efficacy of non-invasive aesthetic modalities, and their role in prevention and treatment of aesthetic concerns/issues.

Most patients and physicians reported that cost continues to be a significant barrier to seeking aesthetic treatments, warranting potential consideration during the development of the treatment plan. Other factors posing major barriers to treatment from the respondents' perspective, but underestimated by physicians, include pain, side effects, and unnatural-looking aesthetic outcomes. Indeed, 65% of aesthetically conscious survey respondents rated a fear of needles, injections, or pain as a barrier to seeking treatment, whereas only 42% of surveyed physicians perceived these fears as a barrier to treatment. Concern over potential side effects was similarly underestimated by physicians; 35% of surveyed physicians perceived safety as a barrier, whereas safety was considered a barrier to treatment by 58% of survey respondents. Fear of an unnatural look is also a major concern for patients considering aesthetic treatments, although it is important to remember that "unnatural" is a highly subjective term that will vary across generations, gender, and geographic locations. However, individuals seeking aesthetic improvements often share the common goal of wanting to look healthy and refreshed, representing the best version of themselves. Physicians should, therefore, place greater emphasis during consultations on addressing these more controllable, non-financial barriers to aesthetic treatment (ie, side effects, fear of needles/pain, or unnatural look) to achieve patients' aesthetic goals.

The disparity between the surveyed participant and physician responses may be explained by several potential biases. This survey was designed to assess aesthetically conscious survey respondents with a 70% female and 30% male gender breakdown for each surveyed country; however, the physicians surveyed were mostly men (68%) and treated predominantly female patients (75.2%). An additional limitation of this study is that non-binary aesthetically conscious respondents were not surveyed, and the aesthetic terminology, ideals, concerns, and treatment

approaches for non-binary individuals may be distinct from those of individuals identifying as men and women. An additional rationale that may explain the differences in survey responses is that physicians may be inclined to address aesthetic concerns based on the availability of safe and efficacious aesthetic treatments rather than patient concerns. Other limitations of the study include self-selection bias. The online survey may have self-selected technologically adept consumers and physician respondents, and this may not accurately reflect the attitudes of either group in real life. Another source of bias includes advertising and marketing, which has increased the familiarity that consumers and prospective patients have with some, but not all, aesthetic terminology (eg, crow's feet lines are likely more well-known than glabellar lines). This selective familiarity could lead to biases in survey responses if patients are unable to articulate their concerns. Another potential limitation of this study is oversampling of dermatologists (41%) compared with plastic surgeons (22%), who may see different groups of patients presenting with distinct concerns. Ethnic and cultural differences among respondents in different geographical locations likely also influence the degree of overlap between aesthetically conscious respondent and physician responses. Additionally, only a small proportion (<10%) of aesthetically conscious survey respondents reported receiving injectable treatments such as botulinum toxin or dermal fillers, and future studies assessing treatment priorities of aesthetically experienced patients are warranted. Lastly, this survey did not include individuals born after 1997, precluding comparisons between older generations and the growing prospective market of Generation Z patients. Future surveys and analyses should examine factors and populations not included in this current study.

CONCLUSIONS

Based on these survey data from over 14,000 aesthetically conscious participants and over 1300 physicians in aesthetic practice, we identified several areas of disconnect between patients and physicians related to language, treatment goals, and barriers to seeking aesthetic treatment. Overall, physicians and aesthetically conscious respondents use similar terms to describe beauty and attractiveness; however, physicians tended to emphasize symmetrical and delicate, which may resonate less with today's patients who frequently employed clean and natural as descriptors of aesthetic ideals. Regarding anatomic areas of concern, both groups viewed upper facial lines as an important aesthetic concern; however, physicians underestimated the importance of skin quality issues, under-eye bags or dark circles, mid-face volume deficits, and hair-related issues. Although cost is a well-recognized barrier to seeking treatment, physicians may be underestimating

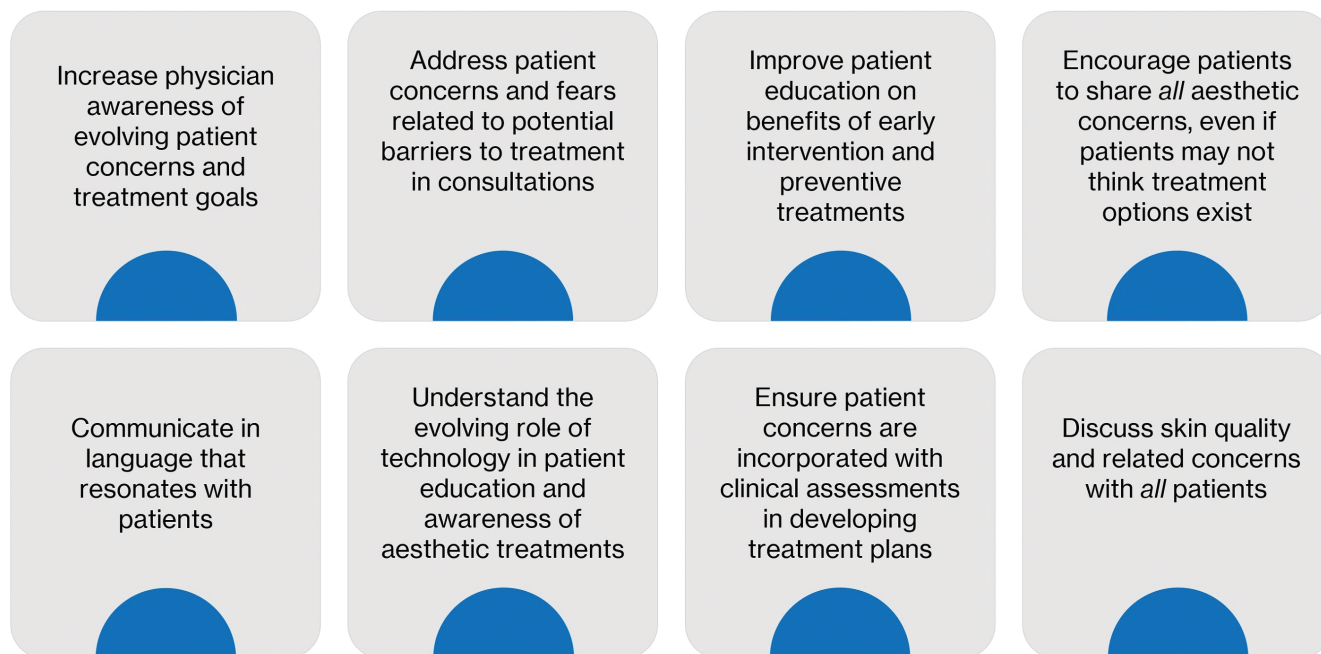


Figure 10. Recommendations for improved patient–physician alignment.

other potential factors, such as safety concerns or fear of an unnatural look, that are more easily addressable.

The current findings provide an opportunity to better align aesthetic treatment goals between patients and physicians (Figure 10). First, physicians should increase their awareness of consumer concerns and treatment goals that may be discordant with consumers' priorities and concerns or underestimated. Second, patient concerns and fears related to potential barriers to treatment (eg, fear of pain or needles) should be addressed during consultations. Third, patient education should be improved to emphasize the preventive rather than corrective potential of non-invasive aesthetic treatments as well the benefits of early intervention to address signs of aging when they may be exclusively addressed with non-surgical options. Patients should be encouraged to share all potential aesthetic concerns even if treatment options do not exist, and physicians should employ terminology and concepts that resonate with patients' evolving aesthetic ideals and awareness. Additionally, physicians should examine and understand the evolving role of technology in patient education and awareness of aesthetics treatments and emphasize the importance of incorporating patient concerns in the physician–patient consultation in addition to their clinical assessment. Finally, physicians should discuss skin quality and skin concerns with all patients.

Disclosures

Dr Fabi was a consultant, investigator, and stockholder for Allergan plc (prior to its acquisition by AbbVie Inc, Irvine,

CA). Dr Alexiades was a consultant and investigator for Allergan plc (prior to its acquisition by AbbVie Inc). Drs Chatrath, Stevens, and Swift served as consultants and advisory board members for Allergan plc. Dr Chantrey was a consultant, advisory board member, and investigator for Allergan plc. Dr Heydenrych was a consultant, advisory board member, and received honoraria from Allergan plc (prior to its acquisition by AbbVie Inc). Drs Colucci, Dayan, Jagdeo, and Sherber served as consultants for Allergan plc (prior to its acquisition by AbbVie Inc). Dr Sangha is an employee of Allergan Aesthetics, an AbbVie company, and may own stocks/options in the company.

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