
Patients believe that cosmetic procedures affect their quality of life: An interview study of patient-reported motivations



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Background: Although treatments to address cosmetic concerns are common, patients' self-reported motives for considering such procedures have not been systematically explored.

Objective: To develop a framework of categories to describe patients' self-reported motivations for undergoing minimally invasive cosmetic procedures.

Methods: Face-to-face, semistructured patient interviews were conducted with adult participants who had undergone or were considering minimally invasive cosmetic dermatologic procedures. A qualitative constant comparative approach was used to analyze interview transcripts, yielding themes and subthemes.

Results: A total of 30 interviews were completed. Most patient-reported motivations for cosmetic procedures could be subsumed under 8 general categories (themes): (1) mental and emotional health, (2) cosmetic appearance, (3) physical health, (4) work and/or school success, (5) social well-being, (6) cost and/or convenience, (7) procedural perceptions, and (8) timing of treatment. Many individual motivations in these categories were unrelated to desire for physical beauty. In particular, participants wanted to avoid being self-conscious, enhance confidence, reduce the time and expense required to conceal physical imperfections, and be perceived as capable at work.

Limitations: Only English-speaking patients in the United States were interviewed.

Conclusion: Patient-reported motivations for cosmetic procedures mostly pertained to physical and psychosocial well-being. Indeed, a desire for improved cosmetic appearance was only 1 of the 8 themes revealed through the patient interviews. (J Am Acad Dermatol 2019;80:1671-81.)

Key words: affect; appearance; believe; cosmetic; emotion; interview; motivations; patient; patient-reported; procedures; qualitative; quality of life.

Even though more patients are choosing minimally invasive cosmetic treatments, their reasons for doing so and their procedure-related expectations have not been well-explored.

Existing data suggest that patients' motivations for seeking cosmetic procedure consultations include a desire to look as young as they feel, to be better accepted at work, to be competitive for employment,

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to conceal perceived disfigurement, and to look attractive for friends and family.¹⁻⁷ These results, however, were based on patient responses to physician-generated survey questions and not on direct patient input.

The primary objective of this study was to better characterize the types of motivations that lead patients to consider minimally invasive dermatologic cosmetic procedures through qualitative semistructured interviews.

DESIGN AND METHOD

Participants

Participants were recruited from an academic dermatology practice in Chicago, Illinois. Patients undergoing a cosmetic dermatologic procedure or consultation for a minimally invasive cosmetic procedure were invited to participate in a face-to-face, semistructured interview. Patients were recruited to maximize the range of conditions of concern and treatments of interest so as to generate an exhaustive list of patient motives relevant to minimally invasive procedures. This study was approved by the Northwestern University Institutional Review Board (approval no. STU00201945).

Interviews

Semistructured patient interviews were conducted by 1 of 3 trained staff members in a quiet dedicated research space after they had obtained written informed consent and collected basic sociodemographic information. This type of interview is commonly used in the social sciences and is both open- and closed-ended. It allows interviewees to introduce new concepts in their own words as they respond to standard probes. The resulting data also enable comparison across participants.

Broad, open-ended questions were asked by using a nondirective approach to facilitate unrestricted discussion by the patient regarding all aspects of their experience leading up to consideration of cosmetic treatment. To ensure that these themes were explored during the interviews, interviewers referenced an interview guide containing a list of themes related to the factors that led to the patient's decision to consider cosmetic treatment. Specifically, targeted probing questions were asked to encourage patients to elaborate regarding the following topics: appearance concerns; symptoms

or negative experiences related to appearance concerns; cosmetic procedures received and related side effects; cosmetic procedures under consideration for the future and what others have said about those procedures; and quality of life concerns related to appearance, including emotional and social impacts and school or work-related concerns. Participants were also asked to identify the

importance of particular motivating factors by rating the importance of those factors on a Likert scale, with 1 being not at all important and 4 being extremely important. The interviews were audio-taped, transcribed verbatim, and deidentified before analysis.

Analysis

Transcripts were analyzed via a constant comparative approach,⁸ which is a systematic method of qualitative research analysis that allows for categories to be developed and defined from coding qualitative data. This approach involves an inductive and iterative analysis⁹⁻¹¹ in which categories undergo content and definition changes throughout the process. Each transcript was examined by at least 2 independent analysts, including an experienced qualitative methodologist (S. S.). Analysis involved 9 steps: (1) 5 transcripts were independently reviewed by 4 analysts who took notes on emergent patterns; (2) notes and insights were discussed among the team members, resulting in codes (thematic categories) that formed the basis of a preliminary codebook (list of codes and definitions); (3) the codebook was used to systematically code the transcripts line by line, with each transcript coded by a minimum of 2 analysts; (4) importance ratings were summarized to identify the most important factors; (5) discrepancies in coding were resolved during group discussion, and the codebook refined when needed; (6) coding of the data set was done iteratively and repeatedly, as more interviews were reviewed, to continually refine the codebook; (7) data obtained from coding of later interviews were compared with those from the initial interviews to determine the point at which no new themes were emerging during analysis, thus revealing the point at which thematic saturation¹² had been achieved; (8) once all transcripts had been coded, they were reviewed a final time to ensure that no themes had been overlooked during the coding

CAPSULE SUMMARY

- Patients' motivations for seeking cosmetic procedures are not well understood. Qualitative interviews reveal that patients seek procedures to enhance appearance and improve mental, emotional, and physical health as well as social and work and/or school functioning.
- This qualitative study may help physicians better understand the goals and expectations of cosmetic patients.

process; and (9) the interview findings and themes were used as the basis for development of a conceptual model representing patient motivations for cosmetic procedures.

RESULTS

A total of 46 adult patients who met eligibility criteria were identified and invited to participate in the study before their appointment dates. Three patients declined to participate. Consent was obtained from the remaining patients, and they scheduled for interviews. Thematic saturation, which is the point at which no new themes emerged, occurred at interview 30, after which no further interviews were conducted. Participant characteristics are shown in Table I. Patients' presenting complaints and treatment(s) previously received or being considered at the time of their visit are presented in Table II.

The interviews lasted 20 to 50 minutes. Qualitative analysis of the interview transcripts revealed 8 overarching themes (listed in Table III): (1) mental and emotional health, (2) cosmetic appearance, (3) physical health, (4) work and/or school success, (5) social well-being, (6) cost and/or convenience, (7) procedural perceptions, and (8) timing of treatment. These key themes became the foundation of our conceptual framework of cosmetic patient motivations (illustrated in Fig 1). Representative patient quotes for each of the 8 themes are provided.

Theme 1: Mental/emotional health

Mental/emotional health involved a desire to feel more confident, better, happy, vital, normal/less stigmatized; feel less self-conscious, embarrassed, depressed, anxious, angry, annoyed, frustrated, or consumed by efforts to conceal undesirable physical features; or give a gift to oneself. Of the 30 patients, 27 said that their appearance had affected them emotionally, with this effect manifesting as depression, anxiety, anger, sadness, annoyance, obsessive thoughts, or frustration that they hoped could be improved after cosmetic interventions.

It hurts for me to look in the mirror for the most part because I just see nothing but scars and I see all the angles and all the lighting and it's almost like devastating to me, so I almost have to give myself a pep talk every day to kind of get up and go. (Comment by a 55-year-old female with acne scarring.)

Similarly, many of those interviewed expressed an explicit desire to undergo a cosmetic procedure to improve their mental well-being, including self-confidence, self-esteem, and self-image. They wanted to feel better about themselves, happy, and

Table I. Demographics of patients considering or undergoing cosmetic procedure

Characteristic	Value
Total patients, N (%)	30 (100.00)
Mean age ± SD, y	41.87 ± 15.09
Sex, n (%)	
Male	7 (23.33)
Female	23 (76.67)
Race, n (%)	
Asian	2 (6.67)
Black/African American	3 (10.00)
White	24 (80.00)
Other	1 (3.33)
Ethnicity, n (%)	
Hispanic or Latino	4 (13.33)
Not Hispanic or Latino	26 (86.67)
Education, n (%)	
High school graduate/GED certificate	1 (3.33)
College degree (BA/BS)	15 (50.00)
Advanced graduate degree	14 (46.67)
Prior minimally invasive procedures, n (%)	
0	2 (6.67)
1	12 (40.00)
2	7 (23.33)
≥3	9 (30.00)
Friends/family members have undergone a similar procedure, n (%)	
Yes	17 (56.67)
No	13 (43.33)
Upcoming social event, n (%)	
Yes	12 (40.00)
No	17 (56.67)
Not reported	1 (3.33)

BA, Bachelor of arts; BS, bachelor of science; GED, General Educational Development; SD, standard deviation.

worthy, and also less self-conscious or embarrassed. A desire to stop being self-conscious was cited by 20 of 30 patients (mentioned 59 times), and a desire to feel better was listed by 18 patients (mentioned 46 times) (Table IV).

Theme 2: Cosmetic appearance

Participants wanted to look better in person or in photographs, look normal or younger, and correct an appearance that they disliked by addressing undesirable features that they thought needed improvement. The desire to "look better" in person or photographs was cited by 18 of 30 patients a total of 55 times. Undesirable physical features were noted by 26 of 30 patients (a total of 103 times).

I probably shy away from pictures... when they took photos the indentation was very visible so that gave me like I guess an obsession of looking at pictures just to see if it's visible or how visible it is. (Comment by a 26-year-old female with facial aging and wrinkles.)

Table II. Participants' presenting complaint(s) and associated treatments received in the past or currently of interest

Complaint	Treatment*
Acne scars	Ablative and nonablative laser resurfacing, dermabrasion, medium-depth chemical peels, punch elevation and excision, subcision, TCA CROSS
Facial aging/wrinkles	Ablative and nonablative laser resurfacing, autologous fat injections, botulinum toxin injections, dermabrasion, medium-depth chemical peel, microneedling, radiofrequency and ultrasound skin tightening, rhytidectomy, soft-tissue filler injections
Birth mark	PDL; KTP, Nd:YAG, picosecond, and Q-switched lasers
Port-wine stain	PDL and KTP laser treatment
Facial redness/rosacea	Botulinum toxin injection; IPL, KTP and Nd:YAG lasers; PDL
Facial solar lentigines	Ablative and nonablative laser resurfacing; IPL; picosecond and Q-switched lasers
Excess adiposity	Cryolipolysis, tumescent liposuction
Cellulite	Mechanical and radiofrequency-assisted subcision
Hypertrophic scar	5-Fluorouracil injection, ablative and nonablative resurfacing, corticosteroid injection, KTP laser, PDL
Hyperhidrosis	Botulinum toxin injection
Coup de sabre	Autologous fat injections, soft-tissue filler injections
HIV lipodystrophy	Autologous fat injections, soft-tissue filler injections
Hirsutism/unwanted body hair	Alexandrite, diode, and Nd:YAG lasers
Unwanted tattoo	Picosecond and Q-switched lasers
Alopecia	Hair transplantation
Melasma	Microsecond, Nd:YAG, Q-switched, and other low fluence lasers and energy devices

IPL, Intense pulsed light; KTP, potassium titanyl phosphate; Nd:YAG, neodymium-doped yttrium-aluminum-garnet; PDL, pulsed dye laser; TCA CROSS, trichloroacetic acid chemical reconstruction of skin scars.

*Treatment that the patient received previously or is now interested in receiving.

Table III. Patient-reported motives and importance ratings

Theme of patient motive	No. of patients who mentioned the concern	No. of times the concern was mentioned	Mean importance ratings (range)*
Work and or school success	21	60	3.62 (2-4)
Procedural perceptions	30	319	3.53 (1-4)
Social well-being	28	157	3.31 (1-4)
Cosmetic appearance	30	241	3.25 (1-4)
Cost and/or convenience	30	247	3.10 (1-4)
Mental and/or emotional health	30	423	3.09 (1-4)
Physical health	30	101	3.04 (1-4)
Timing	25	42	2.00 (2-2)

The 30 patients interviewed mentioned a total of 1582 concerns.

*Patients were asked to rate the importance of each motive that they mentioned during the interview by using the following Likert scale: 1, not important; 2, somewhat important; 3, very important; and 4, extremely important.

A desire to "look normal" was mentioned by 16 of the 30 individuals a total of 48 times, and a desire to reverse a recent physical sign of aging (such as wrinkles) was listed by half of them (mentioned a total of 26 times). Perhaps surprisingly, a desire to look younger was described by only 11 patients (a total of 44 times) (Table IV).

Theme 3: Physical health

Concerns included the fear that the condition would worsen, fear of malignancy or infection, and preoccupation with treatment to maintain current appearance. Participants also wanted to improve

their health, reverse undesirable symptoms, and treat discomfort. Fear of the condition or symptom worsening was described by 11 of 30 patients (a total of 26 times). The desire to improve physical discomfort, including symptoms such as pain and pruritus, was noted by 13/30 patients (a total of 40 times) (Table IV).

I've done the [botulinum toxin injection] treatment at least 5 times...and I did it because the sweating just got to be excessive. It was ruining my clothes and it was really uncomfortable. (Comment by a 25-year-old male respondent with hyperhidrosis.)

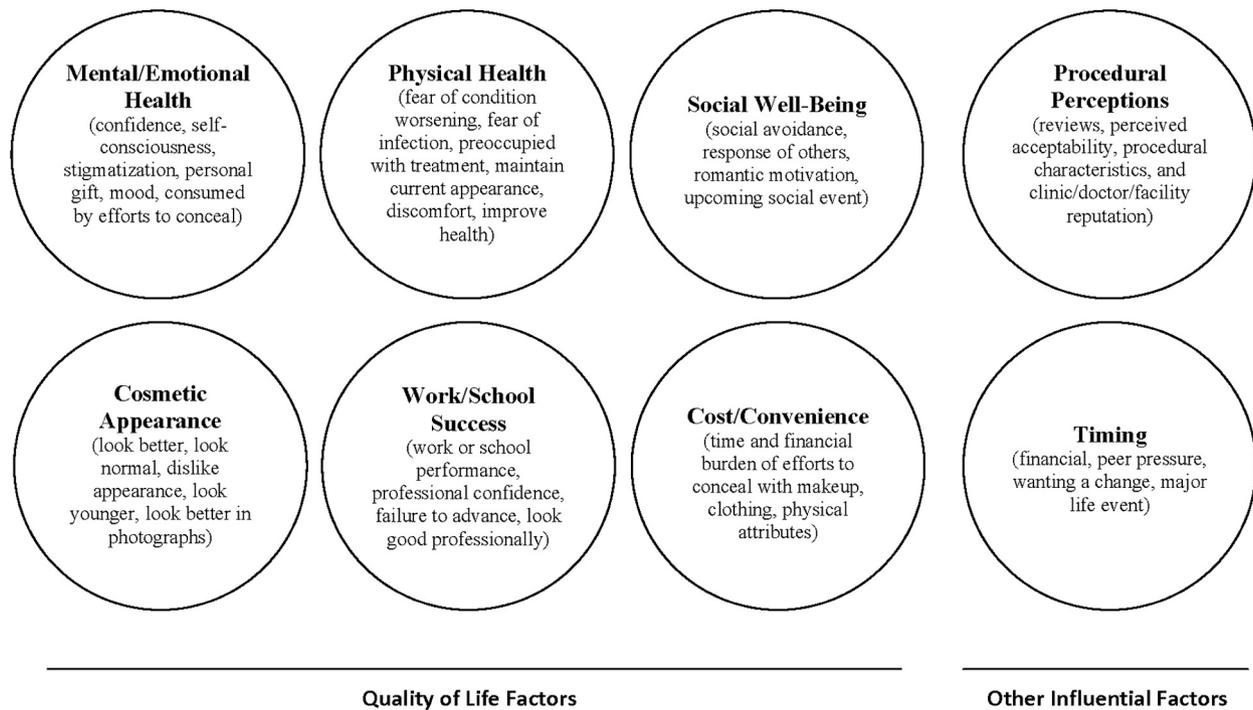


Fig 1. Conceptual framework of the motivations for seeking cosmetic treatment.

Theme 4: Work and/or school success

Those at work wanted to optimize work performance (mentioned 14 times by 5 of 30 patients), and those in school wanted the same (mentioned 2 times by 2 respondents). Major motivations included looking good professionally (mentioned 20 times by 11 respondents) and increasing confidence in a professional setting (mentioned 18 times by 8 respondents) (Table IV).

I meet a lot of people one on one, face to face, I do a lot of presentations, so it's important to me to look good professionally. (Comment by a 52-year-old male respondent with facial aging and wrinkles.)

Theme 5: Social well-being

In a social setting, participants wanted others to respond favorably and overcome their social avoidance. Some also had specific goals to improve their romantic life or prepare for upcoming social events. Of the 30 participants, 24 expressed a desire to receive cosmetic procedures to fix something that they believed others were responding to or focusing on in social situations (Table IV).

You just can't be yourself in front of people when you're worried about how you look and how you come across. Some people think you look nervous. (Comment by a 32-year-old female respondent with hyperhidrosis.)

Theme 6: Cost and/or convenience

Chief among the concerns were the time and cost required to conceal unwanted physical attributes through use of makeup, clothing, and other measures. The need for makeup, clothing, physical adjustments, parting of the hair, and other similar maneuvers was brought up by most (21 of 30) participants (cited 149 times) (Table IV).

I guess the blood vessel I was always kind of embarrassed of so I was always covering up with makeup, so that was just kind of an extra chore that I didn't want to do anymore, so I guess added time to my day. (Comment by a 27-year-old female respondent with facial aging/wrinkles and facial redness.)

Theme 7: Procedural perceptions

Participants wanted procedures that garnered positive testimonials from others who had already undergone them. Also important was the quality of the procedures, including the reputation of the clinic, doctor, or hospital that would be delivering them. The most common reason cited for receiving a cosmetic procedure was that others had reported success with cosmetic procedures (cited by 28 of 30 participants a total of 178 times). In terms of procedural characteristics, patients put more priority on finding a permanent (cited by 20 of 30 a total of 27 times), and effective procedure (cited by 17 of 30 a total of 51 times), with fewer emphasizing

Table IV. Themes and representative comments

Theme	Representative comments
Theme 1. Mental and/or emotional well-being	
Subtheme 1: Confidence	"I guess just...being able to feel confident, you know, when you walk around you just want to be able to wear everything." (patient 23, female, excess adiposity)
Subtheme 2: Feel better	"Just for myself, I want to feel better." (patient 4, female, port-wine stain)
Subtheme 3: Self-conscious	"I have hyperhidrosis and I just didn't like the way I felt about it. I was self-conscious in public, always worried about if like people could see me sweating through my clothes." (patient 27, female, hyperhidrosis)
Subtheme 4: Normal or less stigmatized	"And so...that people when they look at you they don't classify you right away as to, you know, that you have HIV. ...After I've gotten this treatment I'll feel like a normal person and I'll feel that I can put my best foot forward." (patient 16, male, HIV lipodystrophy)
Subtheme 5: Embarrassment	"It makes me feel like I'm super embarrassed, almost like I've done something, even though mentally I know I had no control over this hormonal issue that I've had all my life." (patient 1, female, acne scarring)
Subtheme 6: Personal gift	"I think it is a gift to yourself, I mean paying for it is a gift." (patient 25, female, rosacea/redness)
Subtheme 7: Depression	"Totally self-conscious, extremely anxious and depressed and, again, because it was such a rare condition there was no guarantee...if or how long it was going to take to resolve so that was frightening." (patient 2, female, facial allergic granulomatous reaction from microneedling)
Subtheme 8: Anxiety	"Social events produce super high anxiety because those people don't know me and I'm meeting people for the first time and you always try to put your best face forward, and I feel like all of my flaws are like boom, here we are, so that created anxiety." (patient 1, female, acne scarring)
Subtheme 9: Anger	"I'm angry because... I feel sometimes invisible because I'm trying to keep that low key and I feel like people don't hear me. I feel like sometimes now I get hurt more." (patient 1, female, acne scarring)
Subtheme 10: Happy	"I think emotionally it makes me happy to do it. I like looking at my face better and...it makes me happy to fix those little things that bother me." (patient 17, female, facial aging/wrinkles)
Subtheme 11: Annoyance	"You...have to wear dark clothing all the time, which is kind of annoying." (patient 14, male, hyperhidrosis)
Subtheme 12: Frustration	"I keep coming back and I keep doing this, but I—it's frustrating to spend this much money and still be so red, so that's why I'm ramping up my effort to okay, instead of once a year, then maybe it's twice a year or maybe it's like every other month, so I'm trying to, because I want to move past this if we can get this under control and know what I need to do." (patient 8, female, rosacea/redness)
Subtheme 13: Feel consumed by efforts to conceal undesirable physical features	"Like when I was out or whatever, it was what I wore, like I never wanted to wear red because I felt like it would match my face." (patient 5, female, facial redness)
Subtheme 14: Enhance vitality	"I feel like I look, I have no more vitality and I have no energy" (patient 1, female, acne scarring)
Theme 2. Cosmetic appearance	
Subtheme 1: Look better	"You just feel a little better about yourself when you feel like you look better." (patient 11, male, facial aging/wrinkles) "I'm just trying to look better." (patient 8, female, rosacea/redness) "Quality of life, look better, feel better, live better." (patient 19, male, HIV lipodystrophy)

Continued

Table IV. Cont'd

Theme	Representative comments
Subtheme 2: Look normal	"I'd like it to be as normal looking as I can." (patient 13, female, scars)
Subtheme 3: Dislike appearance	"It hurts for me to look in the mirror for the most part because I just see nothing but scars and I see all the angles and all the lighting and it's almost like devastating to me, so I almost have to give myself a pep talk every day to kind of get up and go." (patient 1, female, acne scarring)
Subtheme 4: Undesirable feature or improve a thing that was never liked	<p data-bbox="683 464 1287 485">"It was the indentations." (patient 1, female, acne scarring)</p> <p data-bbox="683 495 1392 548">"Because my face was like red as an apple." (patient 5, female, facial redness)</p> <p data-bbox="683 558 1408 600">"Pretty deep line that I had in my glabella region." (patient 7, female, facial aging/wrinkles and facial redness)</p>
Subtheme 5: Look younger	<p data-bbox="683 611 1408 684">"I also want to look on the outside how I feel in my head I look on the inside, so I just wanted to reflect." (patient 23, female, excess adiposity)</p> <p data-bbox="683 695 1408 747">"Vanity is key among them, trying to look younger." (patient 9, male, facial aging/wrinkles)</p>
Subtheme 6: Photographs	"I probably shy away from pictures...when they took photos the indentation was very visible so that gave me like I guess an obsession of looking at pictures just to see if it's visible or how visible it is." (patient 18, female, facial aging/wrinkles)
Theme 3. Physical health	
Subtheme 1: Fear that the condition will get worse	<p data-bbox="683 905 1408 978">"But still, I just wanted to have it just removed in case it evolved into something really big or something." (patient 6, female, facial solar lentigines)</p> <p data-bbox="683 989 1408 1157">"I mean it gets, it's getting worse as I get older, so that's why I'm forced to address it because left unaddressed, it's just the redness doesn't go away, and then it leads to breakouts and broken blood vessels, and so it's not like, I know it's not going to go away. I'm just trying to keep it at bay if that makes sense." (patient 8, female, rosacea/redness)</p>
Subtheme 2: Fear of malignancy or infection	<p data-bbox="683 1167 1408 1272">"If it were to rub against garments or things of that nature, would it potentially provide the same effect of causing an infection or skin folding or things of that nature that, where skin flora or whatever will flourish?" (patient 10, female, cellulite)</p> <p data-bbox="683 1283 1408 1335">"Because other attempts at just plucking or waxing the hair have caused ingrowns, some skin infections." (patient 20, female hirsutism)</p>
Subtheme 3: Preoccupied with treatment	<p data-bbox="683 1346 1408 1451">"But I just feel like now, even though I continued to use even double sunscreen in really high amounts, it can still pop up again, so it's just kind of irritating to keep having to put like more and more stuff on it." (patient 6, female, facial solar lentigines)</p> <p data-bbox="683 1461 1408 1566">"I'm very cognizant of the fact when I'm in a social setting. When I'm going out on a date, I do make sure that I have that tweezer in my makeup bag at all times, and I find myself checking often." (patient 20, female, hirsutism)</p>
Subtheme 4: Reversal	"I have these areas that are like red and blotchy and they don't go away, and I've been telling myself as soon as the hot flashes subside that I'm going to try to do something about it." (patient 25, female, rosacea/redness)
Subtheme 5: Maintain current appearance	"I feel great. I'm very grateful and even more concerned because I want to maintain what has taken over a year to resolve." (patient 2, female, facial allergic granulomatous reaction from microneedling)
Subtheme 6: Discomfort	"I've done the [botulinum toxin injection] treatment at least 5 times...and I did it because the sweating just got to be excessive. It was ruining my clothes and it was really uncomfortable...the clothes and...it's embarrassing when you're out." (patient 14, male, hyperhidrosis)

Continued

Table IV. Cont'd

Theme	Representative comments
Subtheme 7: Improve health	"If you look better in the mirror you'll feel better and if you feel better that's a better place to be about your overall health, your overall attitude towards yourself and what you're doing and everything so I think it's much more important than just cosmetic ego." (patient 19, male, HIV lipodystrophy)
Theme 4. School and/or work success	
Subtheme 1: Work performance	"Interacting with clients was a challenge and it was very—it did affect me when I was with clients. I was very self-conscious." (patient 2, female, facial allergic granulomatous reaction from microneedling) "I work in a business where a lot of the executives I support are younger than I am, so that's definitely 1 of the motivating factors to, you know, try to look a little younger." (patient 11, male, facial aging/wrinkles)
Subtheme 2: Confidence	"But I always felt that I'm not quite as good as someone else, like if I were more confident because I looked better with my skin or whatever, I think I could have really, I just let it, I think it's just affected everything I've done on some level." (patient 1, female, acne scarring)
Subtheme 3: Failure to advance	"I've kind of held myself back...even professionally...it's been such a factor in my life and I try to ... push it back all the time, but it's a daily thing." (patient 1, female, acne scarring)
Subtheme 4: Look good professionally	"I meet a lot of people one on one, face to face, I do a lot of presentations, so it's important to me to look good professionally." (patient 9, male, facial aging/wrinkles)
Subtheme 5: School performance	"Well, you know, that you'd like to put a bag over your head and, you know, you wear sun glasses." (patient 1, female, acne scarring)
Theme 5. Social well-being	
Subtheme 1: Social avoidance	"I avoided social contact as much as I could. It kept me from going to the gym to work out. I was self-conscious all the time." (patient 2, female, facial allergic granulomatous reaction from microneedling)
Subtheme 2: Response of others	"You just can't be yourself in front of people when you're worried about how you look and how you come across. Some people think you look nervous." (patient 27, female, hyperhidrosis) "That it stands, that people look at me and say you're red, like wow, like you can see...like oh, you're red or you got a red nose or it's like... probably people like [the interviewer] because [the interviewer has] this beautiful skin, [the interviewer doesn't] even think twice about it, but when you don't have nice skin." (patient 8, female, rosacea/redness) "What is wrong is obvious and people are noticing and I want it removed" (patient 15, male, rosacea/redness)
Subtheme 3: Romantic motivation	"If my husband were to say things about it, it might motivate me" (patient 10, female, cellulite) "So it's important to me... to look good for my partner" (patient 9, male, facial aging/wrinkles)
Subtheme 4: Upcoming social event	"If I know I'm going to run into people, I might kind of try to cover it up and look nice and try to make a nice impression, but that would be like for a reunion or something...where your vanity really sort of gets in the way." (patient 25, female, rosacea/redness) "I'm going to be in some wedding dress and like the back of my arm is going to show, and it's going to look weird like people are going to say what's that." (patient, female, scars)
Theme 6. Cost and/or convenience	
Subtheme 1: Makeup	"Trying to cover it up again with concealers and, actually multiple types of makeup, so concealers, foundation, powder on top of that, it's just too much, it's too much maintenance." (patient 6, female, facial solar lentigines)

Continued

Table IV. Cont'd

Theme	Representative comments
Subtheme 2: Clothing	"I guess the blood vessel I was always kind of embarrassed of, so I was always covering up with makeup, so that was just kind of an extra chore that I didn't want to do anymore, so I guess added time to my day." (patient 7, female, facial aging/wrinkles and facial redness) "You have to wear dark clothing like you have to kind of work around it...wearing layers, things like that." (patient 14, male, hyperhidrosis) "Well, when I wear my scrubs, you can see the saddle bags; I mean it's very visible, so I have always got a jacket or something on." (patient 10, female, cellulite)
Subtheme 3: Physical attributes	"I'm awkward in situations because I'm so self-conscious and I even—I know the angles of everything that, where the light hits on my face, so much that I actually will turn my face or do something and I wear my hair in 1 style just because it's almost like a security blanket for me." (patient 1, female, acne scarring)
Theme 7. Procedural perceptions	
Subtheme 1: Positive reviews (eg, from family/friends, coworkers, doctors, media)	"A lot of it was seeing...how happy people were with the results. I honestly don't think that other than having experience seeing it...every day I would have done it, but once I realized that people were pretty happy, I went forward with it." (patient 7, female, facial aging/wrinkles and facial redness)
Subtheme 2: Acceptability	"I have friends that have done [botulinum toxin injections]. I have friends that have done filler. I have friends that have done [laser skin resurfacing], also hair removal lasers. I've had family that have done [laser skin resurfacing], and I've had a lot of people that have done a lot of things." (patient 28, female, traumatic scar)
Subtheme 3: Procedural characteristics (eg, minimal risk, non-invasive, availability, ineffective, permanent solution, affordability)	"I'd do my research just to make sure that it's an FDA-approved procedure—that there is some kind of a clinical success behind it." (patient 29, male, alopecia) "It's temporary, and I'm kind of looking for something that's more of a permanent fix at this time" (patient 14, male, hyperhidrosis)
Subtheme 4: Clinic or hospital reputation	"It's something that if I'm going to go for a treatment, I want it to be done by the best and have it done correctly and not just because it's a deal pricewise through any other cosmetic spa or something like that, who may or may not be licensed to do it." (patient 6, female, facial solar lentigines)
Theme 8. Timing	
Subtheme 1: Financial	"I was going to pay off my car and get rid of all my debt, and then I was going to start working on my face." (patient 1, female, acne scarring)
Subtheme 2: Peer pressure	"I got [botulinum toxin injections] the first time from pressure from friends and colleagues." (patient 30, female, melasma)
Subtheme 3: Change (eg, no clear motive, was looking for a change)	"[Botulinum toxin injection] was—the first time was just I bought a Groupon, and I just wanted to see what it was like." (patient 22, female, unwanted tattoo)
Subtheme 4: Major life event	"If I were going to get married, I'd want to look my best." (patient 19, male, HIV lipodystrophy)

FDA, US Food and Drug Administration.

the need for affordable (mentioned by 11 of 30), low-risk (cited by 10 of 30 a total of 21 times), or noninvasive procedures (cited by 5 of 30 a total of 8 times) (Table IV).

... I'd do my research just to make sure that it's a [US Food and Drug Administration]-approved procedure, that there is some kind of a clinical success behind it. (Comment by a 52-year-old male respondent with rosacea/redness.)

Theme 8: Timing

As to why participants were considering a procedure now, they mentioned being able to afford it at present or having an upcoming major life event that spurred them to action. Among the reasons pertaining to timing, change in finances was most commonly declared (cited by 18 of 30 a total of 33 times) followed by desire for change (cited by 5 of

30 a total of 7 times) and a major life event (cited by 2 of 30 participants [mentioned by each just once]) (Table IV).

I was going to pay off my car and get rid of all my debt and then I was going to start working on my face. (Comment by a 55-year-old female respondent with acne scarring.)

Table III lists the aforementioned 8 themes in order of importance based on patient rating. Work and school success was deemed most important (by 21 of 30 patients). The timing of the procedure was the least important reason for undergoing a minimally invasive procedure, with a mean importance of 2 (listed by 25 patients a total of 42 times).

DISCUSSION

The qualitative findings from this study provide novel insights, from the patients themselves, regarding the factors that drive patients to seek care from cosmetic dermatologists. Patients identified the following goals as important: desire to improve emotional state/happiness, improve mental well-being/self-esteem, improve overall looks, reduce associated physical symptoms, feel more confident in a professional setting, reduce social anxiety, and reduce the time and/or energy or money spent concealing the physical imperfection. The reputation of the procedure and provider were also important to patients, as were the effectiveness and longevity of the procedure. Furthermore, patients' financial situation and upcoming major events influenced the timing of their interest in cosmetic treatment.

Notable differences were found between the patient motives elucidated from the patient interviews in this qualitative study and those derived through earlier, more directive investigator-generated surveys.^{1-7,13} Numerous factors related to mental and emotional health were identified in our patients. Specifically, we found that participants wanted to reduce negative emotional states, such as depression, anxiety, anger, and sadness, and they wanted to feel more positive states, such as happiness. They also sought to improve their mental health by diminishing their obsessive thoughts about their appearance and thereby reducing their associated annoyance and frustration. Although Koljonen and Kluger (in 2012)³ and Sobanko et al (in 2015)⁶ stated that experiencing a recent life-changing event (eg, change in marital status) was a common motivating factor, we did not. On the other hand, our participants did report that an

upcoming important event such as a wedding was influential in their decision making. We also found, as did Galanis et al (in 2013),¹ that the reputation of the doctor was among the most important elements in selecting a cosmetic surgeon.

This qualitative study provides important insights into the motivations of cosmetic patients but is not without limitations. It is reasonable to assume that motives for pursuing cosmetic treatment vary depending on local and cultural norms. Although our sample was relatively diverse and reflective of the population seen by cosmetic dermatologists in urban practices, all of the interviews were conducted in the United States with English-speaking US nationals. Thus, the validity of the findings remains to be verified in groups other than this specific population. Similarly, only patients considering or receiving cosmetic treatments were interviewed. Although we did not note differences between patients who had no prior procedures and those who had undergone 1 or more procedures, we had an insufficient sample to make such a comparison. It is likely that the motives of patients who are dissatisfied with their appearance but decide *not* to consider cosmetic treatment are less well reflected or weighted in our findings. This population of patients should be evaluated separately in a future study. This was an exploratory study^{14,15} to garner initial insight into motivations from patients themselves for further evaluation. Next steps include developing a theoretical framework to better understand these motivations, assessing the frequency of these motivations in selected populations, and developing tools to help clinicians elicit and manage motivations in individual patients. Results from such work may be analyzed statistically.

As medicine continues to shift toward a more patient-centered approach, it is exceedingly important to understand the experience of the patients whom we treat. We propose that the 8 themes identified here represent an important resource for providers, who may be able to use this information to improve provider-patient communication, better counsel patients about cosmetic procedures, and help patients arrive at choices through shared decision making.

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