

Motivations for In-Office Superficial Chemical Peeling

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Chemical peeling is experiencing a wave of popularity in the dermatology field. A study was conducted to investigate why individuals seek treatment and their degree of satisfaction after the procedure. The open-label, multicenter study was conducted in 5 European countries (France, Germany, Greece, Spain, and Switzerland) with participants receiving a series of 4 peels, including the novel, superficial β -lipohydroxy acid peel. A total of 298 women aged 25 to 65 years with Fitzpatrick skin types I to III completed 2 self-evaluation questionnaires before and after treatment. Forty-six percent of participants reported undergoing a prior procedure with generally good results. Participants had learned about superficial peels from their dermatologists in 74.2% of cases; friends or family, 17.8%; general practitioners, 8.1%; media, 8.1%; beauticians, 3.4%; and other sources, 2.7%. The most common reasons for undergoing treatment were a desire to improve the complexion, to look less tired or less stressed, and to try a new beauty treatment. More than 85% of participants felt that their results met their expectations to a satisfactory or fairly satisfactory degree, and most participants intended to receive more peels in the future. This study confirms that superficial peels yield good results for tackling skin aging. In general, the results of superficial peels met participants' expectations.

Aesthetic procedures (eg, peels, lasers, fillers, botulinum toxin) are becoming increasingly common in dermatology. Today's patients are highly motivated to seek treatments that revitalize skin and reduce signs of photoaging. Superficial chemical peels provide a popular, inexpensive, and generally well-tolerated

therapy for rejuvenating skin. A wide variety of peeling agents are available, including α -hydroxyl acid and β -hydroxyl acid. Recently, β -lipohydroxy acid (LHA) superficial peels became available. A derivative of salicylic acid, LHA is the first new peeling agent to be introduced since the 1990s.

Although it is clear that patients are motivated to seek treatments to improve their skin quality, relatively little is known about specific reasons and attitudes that influence patients who undergo peeling procedures in dermatologists' offices.

METHODOLOGY

This investigation was conducted as part of an open, multicenter study carried out in 5 European countries (eg, France, Germany, Greece, Spain, and Switzerland) to test the satisfaction and practicality of a specific LHA peel. In this 14-week study, there were 6 planned visits to the dermatologist, including selection and pretreatment (2 weeks); peeling (4 sessions during 8 weeks); and follow-up (4 weeks posttreatment). Superficial peel

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indications, established by the dermatologist, comprised fine lines or wrinkles, superficial pigment spots, a dull-looking complexion, or a combination of indications.

Eligible for the study were females aged 25 to 65 years with Fitzpatrick skin types I to III who had requested a superficial peel. Participants were required to utilize an efficient method of contraception for the duration of the study, be in general good health, and provide written informed consent. Women who were pregnant or lactating were excluded from the study. Also excluded from the study were women with rosacea; papular inflammatory acne; history of dermatologic facial conditions (eg, flat warts, seborrheic dermatitis, psoriasis, eczema, or cutaneous infection); active labial herpes; history of psychiatric illness; acute or chronic illness; or skin irritation of any origin (eg, sunburn, burn, tan). In addition, individuals who had utilized the following procedures and skin care prior to study entry were excluded: scrub or abrasive treatments (1 week); facial operations (6 weeks); peels (8 weeks); resorbable filler or botulinum toxin injections (12 weeks); nonresorbable filler injections; or removal of facial hair with creams, electrolysis, or lasers (2 weeks). Individuals discontinued the following medications prior to the study: topical retinoids or topical products containing α -hydroxyl acids (1 week); systemic or topical corticosteroids, antibiotics, or any medication that could affect the study outcome (2 weeks); or systemic isotretinoin or anticancer treatments (24 weeks).

After the baseline assessment, participants primed the skin for 15 days prior to treatment using cleansing gel, LHA serum, and moisturizing cream. During the next 8 weeks, participants attended 4 peeling sessions at approximately 2-week intervals. For 3 days following each peel session, the participant used exfoliating products 2 times per day and sunscreen with SPF 50.

ASSESSMENTS

Participants completed a self-evaluation questionnaire before undergoing any treatment, providing information on aesthetic procedures they received in the past, including cosmetic surgery; the types of procedures undergone; participants' degree of satisfaction regarding those previous cosmetic procedures; how participants heard about superficial peels; and the motivations behind the current peel request (eg, physical, psychological, and professional). The questionnaire is shown in Table 1.

At the end of the peeling sessions, the participants completed a second self-evaluation questionnaire (Table 2) about satisfaction with their treatment. Descriptive statistical analysis of the results was performed using Statistical Analysis System software for all calculations.

RESULTS

A total of 298 individuals participated in the study. Of these, 46% (n=137) had already undergone at least one aesthetic procedure; 52% (n=154) reported this was their first aesthetic procedure; and 2% (n=7) had no response. The study participants who reported prior experiences had undergone a range of aesthetic procedures (Table 3). Participants with prior experiences were asked to rate their satisfaction on a scale of 1 to 5 where 1=not satisfied and 5=satisfied. The highest satisfaction was with botulinum toxin injections (mean [SD] rating 4.9[0.4]) and the lowest satisfaction was with peels (mean rating 4.2[1.2]).

Participants were informed about superficial peels from their dermatologists in 74.2% of cases; friends or family in 17.8%; general practitioners in 8.1%; the media in 8.1%; beauticians in 3.4%; and other sources in 2.7%.

Physical appearance was the most frequently mentioned reason (95%) for a peel. Psychological reasons (85%) and professional reasons (53%) were also very common. The physical reasons listed on the questionnaire included dull complexion, oily skin, brown spots, fine lines, wrinkles, or a desire to erase skin imperfections. Personal reasons indicated negative comments from friends and family regarding participants' lackluster complexion; the perception of looking older than one's age; looking tired or stressed; and wanting to try a new beauty treatment. The questionnaire defined professional reasons as the desire to project a younger image at work or a desire to project a more dynamic image in general. Participants were asked to check all reasons that applied and to rank them according to importance. The most commonly listed reasons were the desire to improve imperfections (64%); improve the complexion (59%); remedy a tired or stressed appearance (59%); and try out a new beauty treatment (55%). All reasons are shown in Table 3.

More than 85% of participants felt that the results obtained with the peeling series corresponded with their expectations to a satisfactory or fairly satisfactory degree. Most participants (>85%) reported they would definitely or probably undergo a new course of treatment in the future. In addition, the participants reported they would change their skin care routines by using more facial products and moisturizing creams. Approximately half of the participants reported that they would be more likely to use antiwrinkle creams, and only 3 participants reported they would reduce their product use.

DISCUSSION

This study provided information concerning women aged 25 to 65 years undergoing aesthetic procedures in dermatologists' offices. Approximately half of the participants

TABLE 1

Self-evaluation Questionnaire Given to Participants Prior to Treatment

How do you take care of your skin on a daily basis?

(Multiple choice question)

- Facial cleansing products
- Moisturizing cream
- α-Hydroxy acid cream
- Antiwrinkle cream
- Other specific skin care, please indicate:

- No skin care

Is this your first aesthetic dermatology procedure?

- Yes
- No (please fill out table below)

Have you ever had a superficial peel before?

- Yes
 - at a dermatologist's practice
 - at a salon
 - at home
 - other
- No

If yes, how many times? _____

How long ago was your last superficial peel (in number of months)? _____

Please put a cross in the box or boxes indicating the procedures you have had previously.

Please put a cross in the box indicating the extent to which you agree (only one box per line).

| | Satisfied | Fairly satisfied | Neither satisfied nor unsatisfied | Fairly satisfied | Not satisfied |
|---|--------------------------|--------------------------|-----------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> Botulinum toxin injections | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Hyaluronic acid injections | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Collagen injections | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Resurfacing laser | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Depigmenting laser | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Microdermabrasion | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Medium or deep peel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> Others: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

How did you hear about superficial peels?

- Through friends/family
- Through my dermatologist
- Through another type of physician
- Through the media (in this case, please specify which):

- Through my beautician
- Other _____

What motivated you to have a superficial peel? (Rank according to order of importance)

- Physical reasons:
- I think I have a dull complexion
 - I think I have oily skin
 - I think I have brown spots
 - I think I have fine lines
 - I think I have wrinkles
 - I would like to erase my skin imperfections
- Personal reasons:
- My friends and family say I have a lackluster complexion
 - I think I appear older than I actually am
 - I think I appear tired or stressed
 - I want to try a new beauty treatment
- Professional reasons:
- I want to project a younger image at work
 - I want to project a more dynamic image in general

TABLE 2

Self-evaluation Questionnaire Given to Participants Posttreatment

What was your first impression of the superficial peel treatment?

- Satisfied
- Fairly satisfied
- Neither satisfied nor unsatisfied
- Fairly unsatisfied
- Not satisfied

The superficial peel sessions seemed to be:

- Short
- Quite short
- Neither short nor long
- Quite long
- Long

The superficial peel sessions seemed comfortable.

- Agree
- Agree on the whole
- Neither agree nor disagree
- Disagree on the whole
- Disagree (please indicate why) : _____

Please fill in the following tables regarding the products used at home.

Please put a cross in the box indicating the extent to which you agree (only one box per line).

| Solutions or gels: | Agree | Agree on the whole | Neither agree nor disagree | Disagree on the whole | Disagree |
|---|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|
| Easy to apply | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pleasant texture | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Prepares skin well for superficial peel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please put a cross in the box indicating the extent to which you agree (only one box per line).

| Serums: | Agree | Agree on the whole | Neither agree nor disagree | Disagree on the whole | Disagree |
|---|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|
| Easy to apply | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pleasant texture | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Prepares skin well for superficial peel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

The Cryogel applied immediately after the superficial peel session has a pleasant texture.

- Agree
- Agree on the whole
- Neither agree nor disagree
- Disagree on the whole
- Disagree

The Cryogel felt refreshing and soothing.

- Agree
- Agree on the whole
- Neither agree nor disagree
- Disagree on the whole
- Disagree

How many times (on average) per day have you felt the need to use the Cryogel? _____

had already undergone an aesthetic procedure with satisfactory results. At baseline, participants' satisfaction was greatest with botulinum toxin injections and lowest with chemical peels. However, after the superficial peel series, more than 85% of participants were satisfied with the LHA chemical peel and would try it again in the future.

Some studies¹⁻⁴ focus on the importance of evaluating the psychological profile of individuals seeking cosmetic procedures to detect those with personality disorders, notably body dysmorphic disorder, which is a major cause of treatment dissatisfaction and failure. Few studies investigate why individuals actually seek treatment,

TABLE 2 (CONTINUED)

Self-evaluation Questionnaire Given to Participants Posttreatment

During the control visit (4 weeks after the 4th superficial peel session), the following questions will be asked to participants concerning the results delivered by the superficial peel and their overall satisfaction.

What are the objective and subjective results of the superficial peel? _____

Physical consequences:

- I think I have a more radiant complexion
- I think I have less oily skin
- I think I have fewer brown spots
- I think I have fewer wrinkles
- I think my skin is clearer and more even
- I think my skin is smoother

Personal consequences:

- My friends and family think I have a healthy-looking complexion
- I think I appear younger
- I think I appear less tired
- I have discovered a new beauty treatment

Professional consequences:

- I no longer have hang-ups at work regarding my age
- I project a more dynamic image

Are you satisfied with the results of your superficial peel treatment?

- Satisfied
Positive results observed: _____
- Satisfied on the whole
- Neither satisfied nor unsatisfied
- On the whole not satisfied
Negative results observed: _____
- Not satisfied

Do you plan on having another course of treatment later on?

- Yes, definitely
- Yes, probably
- No, probably not
- No, certainly not

Would you recommend this treatment to your friends?

- Yes, definitely
- Yes, probably
- No, probably not
- No, certainly not

Following this superficial peel course, do you plan on changing your daily skin care habits?

- Yes, I am going to take better care of my skin
- I do not know
- No, I am not going to change my habits

or assess their degree of satisfaction after the procedure. Therefore, it seemed interesting for the authors to investigate the reasons that motivate individuals to undergo superficial peels and the satisfaction they derive from them.

By comparing the psychological profile of 35 women seeking an aesthetic procedure with that of a comparable control group, Mühlan et al⁵ demonstrated that the psychological profile of patients undergoing cosmetic procedures was not significantly different from that of a control group. This finding contradicts studies carried out approximately 20 years prior where the frequency of dysmorphic disorders was very high among individuals seeking cosmetic treatment.⁴ This change is probably due to the heightened prevalence of this type of treatment, which is becoming an increasingly common feature of daily life and no longer restricted to specific cases.

As has been recently suggested,⁶ the fact that many women undergo a superficial peel following other cosmetic procedures shows that the technique is often incorporated in a global antiaging strategy. In this survey, participants were satisfied with the procedures they had experienced prior to study entry. The satisfaction rate

varied, but was higher than 80%. Botulinum toxin injections received unanimous satisfaction.

Participants' postprocedure satisfaction levels are rarely measured; therefore, this information is both new and interesting. Lee et al⁷ measured an 88% satisfaction rate among 123 participants who completed a questionnaire. In this investigation, the authors sent out 683 questionnaires by mail and only received 123 responses. This method raises the issue of knowing who responds and whether the selection method (voluntary response by mail) could recruit a specific subpopulation with dissatisfied or very satisfied participants.

Dermatologists had informed 74.2% of participants about peels. This large figure is probably due to a study bias because it was only carried out at dermatologists' offices. However, Tzung et al⁸ have recently shown that in 67% of cases, the dermatologist is the most important factor in choosing to undergo laser or pulsed light treatment. This finding is explained by the fact that the dermatologist is viewed by individuals as the professional who has the best skin management expertise.

In this case, the media influenced 8.1% of cases. However, 2 recent publications have highlighted the media's

TABLE 3

Aesthetic Procedures and Satisfaction in Women Reporting Prior Experiences

| Procedure Experienced Prior to Study, n | Mean (SD) Satisfaction (range) |
|---|--------------------------------|
| Botulinum toxin injection, 64 | 4.9 (0.4) (4–5) |
| Hyaluronic acid/collagen injection, 67 | 4.7 (0.9) (1–5) |
| Resurfacing and pigmentary lasers, 20 | 4.3 (1.1) (1–5) |
| Microdermabrasion, 20 | 4.5 (0.9) (2–5) |
| Superficial peel, 42 | 4.2 (1.2) (1–5) |
| Other, 17 | 4.2 (1.0) (2–5) |

increasing influence, particularly the role of television⁹ and the Internet.¹⁰

The motives for receiving a chemical peel correspond with superficial peel indications included in a recently published algorithm on managing skin aging.⁶ However, these motivations were simply those declared by participants. Tortopidis et al¹¹ have shown that participants' responses did not always correspond to the opinions of the professionals treating them. Therefore, we cannot be sure that the superficial peel indications experienced by participants correspond to those seen by dermatologists.

Participants' motives for undergoing peels were divided into 3 categories: physical motivations corresponding to a description of their skin; psychological motivations from their perceptions; and professional motivations associated with their image. These divisions were arbitrary and some terms that were used could be close in meaning. The choices of motivations are those classically evoked in superficial peel indications.

Participants' postpeel satisfaction levels were above 85%. Participants who had already undergone peels had comparable satisfaction levels to the previous peel. More than 85% of the participants intended to definitely or probably undergo a new course of treatment in the future. This shows that they see this technique as effective and readily repeatable. Superficial peels are included as a step in their global approach to treating aging skin. This attitude further emphasizes the heightened prevalence of certain cosmetic techniques, which are becoming an increasingly common aspect of modern lifestyles.

CONCLUSION

This study confirms that superficial peels are incorporated into a global approach to tackle skin aging. Indeed, nearly

half of the women who receive superficial peels have undergone other procedures before. Physical and psychological motivations are the most common reasons for receiving a superficial peel. In general, results of chemical peels correspond well with individuals' expectations.

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