

Article Original

Cosmiatry from the perspective of women: a pilot-study in three Brazilian states

A cosmiatria na perspectiva das mulheres: estudo-piloto em três estados do Brasil

Authors:

Gustavo Martins¹
 Fred Bernardes Filho²
 Leticia Soares Sasso³
 Marilda Aparecida Milanez Morgado de Abreu⁴
 Omar Lupi⁵

¹ Dermatologist Physician—Rio de Janeiro (RJ), Brazil

² Post-graduate Candidate in Dermatology at Instituto de Dermatologia Professor Rubem David Azuly of the Santa Casa da Misericórdia do Rio de Janeiro (IDPRDA—SCMRJ)—Rio de Janeiro (RJ), Brazil

³ Ophthalmologist Physician—Rio de Janeiro (RJ), Brazil

⁴ Head of the Dermatology Service of the Hospital Regional da Universidade do Oeste Paulista (UNOESTE)—Presidente Prudente (SP), Brazil

⁵ Associate Professor of Dermatology, Universidade Federal do Estado do Rio de Janeiro (UNIRIO); Permanent Post-graduate Instructor at the Universidade Federal do Rio de Janeiro (UFRJ); Full Professor and Head of the Dermatology Service of the Department of Dermatology at Policlínica Geral do Rio January (PGRJ)—Rio de Janeiro (RJ), Brazil

Correspondence:

Dr. Gustavo Martins
 Rua 38, nº 936—Progresso
 Cep: 38302-010—Ituiutaba—MG, Brazil
 E-mail: luizgustavodermatologia@gmail.com

Received on: 29 August 2013
 Approved on: 9 November 2013

The present study was carried out at a private practice—Rio de Janeiro (RJ), Brazil.

Financial support: None
 Conflict of interest: None

ABSTRACT

Introduction: The beauty industry in Brazil ranks third in the world by size, second only to those of the U.S. and Japan. Paradoxically, the vast majority of studies on aesthetic treatments for the skin do not demonstrate a corresponding knowledge of the industry by the relevant population. Contemporary women, with their increasingly strong role in society, are the engine that drives the growth of the beauty and aesthetics industry.

Objectives: To obtain data related to the population's knowledge of cosmetic dermatology treatments.

Methods: A descriptive, multicentric study was carried out in the Brazilian states of São Paulo, Rio de Janeiro, and Santa Catarina with 600 women between the ages of 18 and 70 years old.

Results: The majority of the target population wants to correct skin imperfections, however there is great suspicion about the effectiveness of the treatments available. The dermatologist's practice is not the main source of information for the interested audience.

Conclusions: The consumer profile in the beauty market undergoes constant changes and to understand the public's knowledge, concerns, and challenges linked to these issues is key to allowing discussion with, and educating patients about the ever-expanding cosmetic dermatology field.

Keywords: esthetics; beauty culture; Lasers; botulinum toxins; skin cream.

RESUMO

Introdução: A indústria da beleza no Brasil é a terceira do mundo, perdendo apenas para os Estados Unidos e o Japão. Paradoxalmente, os estudos sobre os tratamentos estéticos da pele, em sua maioria, não fazem menção ao conhecimento populacional. A mulher moderna, cada vez mais inserida na sociedade, é a locomotiva que puxa o crescimento do mercado de beleza e estética.

Objetivos: Obter dados do conhecimento da população sobre tratamentos cosmiátricos. **Métodos:** Realizado um estudo descritivo, multicêntrico, nos estados de São Paulo, Rio de Janeiro e Santa Catarina com 600 mulheres entre 18 e 70 anos.

Resultados: A maioria da população deseja corrigir as imperfeições de sua pele, porém há grande desconfiança sobre a eficácia dos tratamentos. O consultório dermatológico não é a principal fonte de informações das pessoas.

Conclusão: O perfil de consumo nesse mercado sofre constantes alterações, e saber quais são os conhecimentos, os anseios e as dificuldades da população sobre esse tema é imprescindível, pois assim é possível dialogar e orientar os pacientes sobre esse crescente campo dermatológico que é a cosmiatria.

Palavras-chave: estética; indústria da beleza; Lasers; toxinas botulínicas; creme para a pele.

INTRODUCTION

The quest for beauty and youth is an enduring trend in contemporary culture — also called, by psychoanalysts of culture, ‘the spectacle and culture of the body’.¹ Beautiful, graceful, sublime, wonderful, and superb are adjectives often used to describe something that pleases. It seems that, in this sense, if it is beautiful then it is good—and in fact, a close link between the concepts of beauty and good has developed in various eras in human history.²

Traditionally, dermatologists and plastic surgeons are the specialists who have provided the best aesthetic interventions for an individual patient’s case. Currently, however, the Internet, printed media, and television are important sources of information for people seeking the most appropriate and viable interventions.³

Today, medical knowledge doubles every five years.⁴ Some of the fruits of laboratory research will be put on shelves, becoming almost immediately available to potential consumers. In actuality, prescriptions are not required for the sale of most such products, a fact that establishes a direct relationship with the consumption market.⁵

In the face of the considerable amount of information available on products intended for aesthetic treatments, consumers seem ever more disoriented, and the vast majority do not realize that such information may come from unfounded sources.⁶ Moreover, the classification of those products is controversial.

In 1938, the U.S. Congress passed a law known as The Federal Food, Drug, and Cosmetics Act (the FD&C Act), which established formal criteria for the classification of drugs and cosmetics.⁷ In this document, cosmetics are defined as items that are meant to be spread, poured, sprayed, or nebulized, introduced into or otherwise applied to the human body or any part of it, for cleaning, beautifying, promoting attractiveness, or for the purpose of altering appearance. In contrast, a drug is defined as a substance that is aimed at affecting the body’s structure and function.⁸

It is important to note that every new drug must be clinically tested, following the guidelines of the Food and Drug Administration (FDA) for the registration of new drugs (New Drug Application—NDA) in the U.S., and of the National Health Surveillance Agency (ANVISA) in Brazil.^{9,10} The drug approval process can last more than ten years and can cost hundreds of millions of dollars. Obviously, it is much easier for cosmetics manufacturers to avoid this obstacle by following guidelines that will keep their products classified as a cosmetic. As a result, these products can then be sold freely without the need for prescriptions, and thus consumers will try them with little guidance—and will likely experience disappointment and lack of results—due to the lack of information about them available to the medical community.⁸

The dilemma faced by cosmetics manufacturers must be taken into account: if they support a research study and the product is not proven to work, they will lose money and possibly face decreased sales and negative publicity. However if the product is effective, they will have their products categorized within

the regulations as drugs, and then face a delay until it is taken to the market.¹¹

From an economic point of view, the Brazilian beauty care market (the third largest in the world, behind only those of the U.S. and Japan) quintupled its revenues between 1996 and 2009, according to the Brazilian Association of the Cosmetic, Toiletry, and Perfumery Industry (ABIHPEC).¹² In 2012, revenues reached R\$ 36.24 billion, with ABIHPEC estimating a jump to R\$ 50 billion in 2015. This data was researched by Pyxis Consumo—an Ibope Inteligência tool for gauging market sizes—and points to the C class as the largest consumer of the beauty ware sector’s products in the country.¹³ Regarding the Brazilian geographic region, the Southeast concentrates 50% of the consumption potential of beauty care products, with a total estimated expenditure of R\$ 18.08 billion. However, the highest per capita expenditure per year is registered in the South region, which represents 16% of the total national consumption, with an average per capita consumption of R\$ 252.83.¹²

In 2009, the electronic journal *Fator Brasil* published data identifying the consumption habits of the Brazilian consumer and their respective behavior in light of the financial crisis that took place between 2008 and early 2009. In the survey, consumers answered a direct question about changes in their consumption habits due to the ongoing crisis, indicating whether such habits would change or not. The results showed that spending on beauty and health care suffered little impact with the crisis, ranging from 49% in 2008 to 51% in 2009.¹⁴

At present, most people seeking these treatments are female, however the male market has become increasingly significant, a fact important for the dermatologist physician to be aware, knowing their patients’ interests as well as their therapeutic options.¹⁵

Studies on aesthetic skin treatments mostly do not mention the general population’s knowledge about this subject—may be due to the scientific community’s old, pre-Internet-era habit of believing that it holds an exclusivity of knowledge about treatments for the skin. However, the cost of such treatments and a greater dissemination of information have led to an ever-increasing scrutiny of dermatological treatments.

Therefore, becoming familiar with the knowledge, doubts, and concerns of the population with which dermatologist physicians interact, is crucial.

OBJECTIVES

The present study was carried out with an aim of answering the following questions:

- 1) What are the most common aesthetic skin problems for the population?
- 2) What is the percentage of people who buy products for the aesthetic treatment of the skin without medical prescriptions?
- 3) What is the population’s knowledge about the products’ formulation?
- 4) From whom are the products bought?

- 5) What are the difficulties in carrying out topical treatments?
- 6) What are the difficulties in carrying out procedures?
- 7) What is the source of information about aesthetic treatments?
- 8) What is the percentage of people who regularly use sunscreen?
- 9) What is the efficacy of treatments for people?
- 10) What is the education level of the respondents?
- 11) What is the monthly income of the respondents?

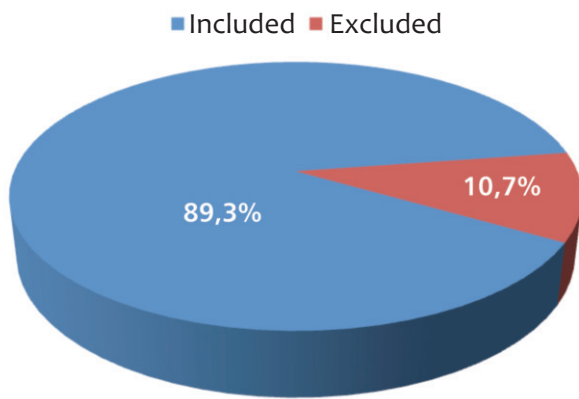
METHODS

A multicentric study was carried out in three different Brazilian states: São Paulo and Rio de Janeiro, in the Southeast Region, and Santa Catarina in the South Region. Participating cities are: São Paulo, Embu das Artes, Ribeirão Preto, Presidente Prudente, Barretos, Viradouro, Colina and Monte Azul Paulista in the State of São Paulo; Florianópolis in the State of Santa Catarina; Rio de Janeiro and Niterói in the State of Rio de Janeiro.

A pilot test was conducted with a questionnaire to assess the patients’ knowledge, the time required for filling it out, and possible difficulties in answering it. The questionnaire was applied to women between 18 and 70 years old.

Six hundred people were interviewed in the referred cities. Sixty-four forms were excluded due to the fact they had been incorrectly filled out (lack of signature, erasures, ambiguous answers in single alternative questions). Five hundred thirty-six forms were sent for statistical analysis (Graph 1).

The interviewer was not allowed to have any influence on the interviewee. The respondent was free to choose more than one alternative or write multiple answers for questions requiring complementary information. Therefore, in questions where more than one alternative could be chosen, the sum of the percentage might exceed 100%, for they were intended to



GRAPH 1: Persons interviewed in the states of Rio de Janeiro, Sao Paulo, and Santa Catarina.

verify the more frequent alterations rather than the percentage sum.

From the occupational standpoint, the patients’ socio-economic status (SES) was measured using two indicators: educational level and income, based on the SES scale used in the Brazilian Classification of Occupations—CBO (Classificação Brasileira de Ocupações—CBO).^{16,17}

All respondents signed a term of consent to participate in the study.

RESULTS

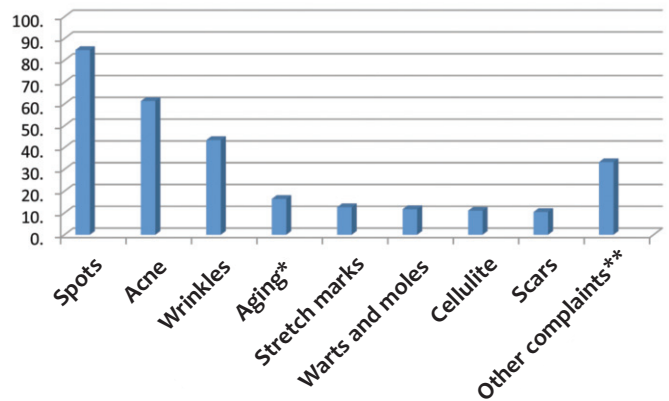
1) Major aesthetic complaints of the population (Graph 2A):

In decreasing order of frequency: 1st) spots (84.7%); 2nd) acne (61.3%); 3rd) wrinkles (43.4%); 4th) aging, rejuvenation, and “signs” of aging (16.4%); 5th) striae (12.6%); 6th) warts and moles (11.7%); 7th) cellulitis (11%); 8th) scars (10.4%).

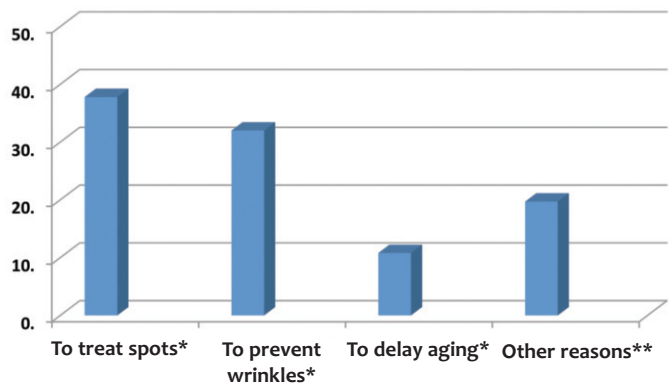
Other complaints such as dry skin, oily skin, or diseases, such as cancer and psoriasis, leveled at about 3% each.

2) On the purchase of creams* for treatment of the skin (Graph 2B treatments):

Percentages: 37.8% of respondents had bought with a view to treating spots; 32.2% bought to prevent wrinkles; 27% bought to slow aging; 16% did not buy any cream for skin treatment; 19.7% bought for other reasons including: oily skin, acne,



GRAPH 2: (A) Major aesthetic complaints of the population.



GRAPH 2: (B) Motivation for buying cream* for treating the skin.

dry skin, dark circles, cellulite, stretch marks, and hydration, ranging from 5% to 2%; 10.8% bought with a prescription, and 89.2% bought without a prescription.

3) Regarding the composition of products for cosmetic treatment of the skin (Graph 3A):

Percentages: 55.5% did not know the function of any component of the formulation; 28.7% knew the function of only a few the formulation's components; 11% knew the function of most of the formulation's components; 2.4% knew the function of all of the formulation's components.

4) Source from which the creams* for aesthetic treatment of skin were bought:

Percentages: 57.4% bought from known door-to-door vendors; 20.3% bought directly from dispensing agents; 34.7% bought at pharmacies; 8.7% bought from other sources.

5) Desire to undergo treatments with creams* to prevent skin aging (Graph 3B):

Percentages: 88.2% expressed a desire to undergo treatments with creams*; 8.3% did not.

6) Limitations when undergoing treatment with creams*

(Graph 4):

Price of treatment (59.3%); uncertainty regarding results (36.3%), concern about allergies (22%); other (3.4%); 9.8% answered that nothing limited the treatment.

7) Desire to undergo procedures (botulinum toxin, laser, peels) to prevent skin aging (Graph 5):

Percentages: 67.1% had one or more of these desires; 22.9% did not have these desires; 10% did not answer.

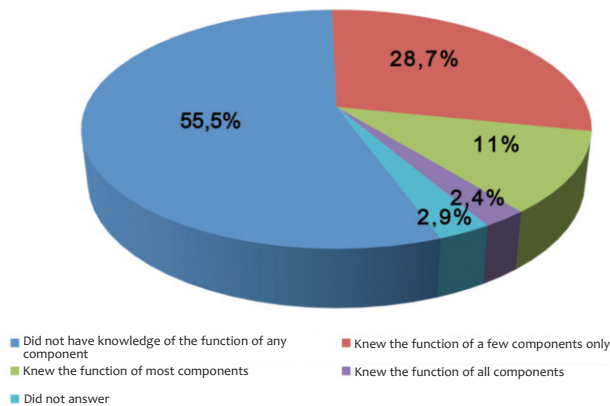
8) Limitations when undergoing these procedures (botulinum toxin, laser, peels) to prevent skin aging (Graph 6A):

Price of treatment (63.8%), uncertainty regarding results; (28.7%), fear of pain (19.1%); other (6.9%). For 8.3% nothing limited the treatments.

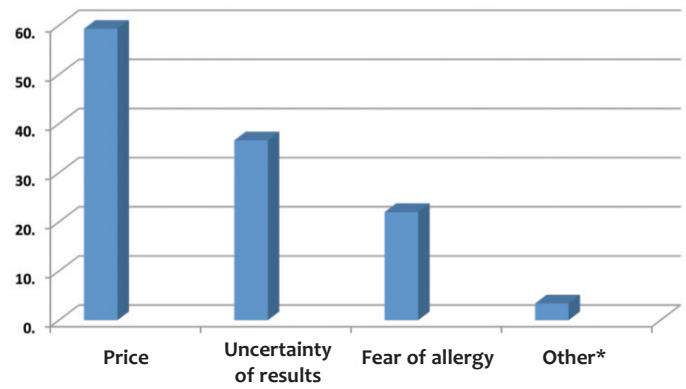
9) Source of information about aesthetic skin treatments (Graph 6B):

Internet (32.4%); beauty magazines (45.3%); medical practices (24.2%); conversations with friends (37.1); other (5.4%).

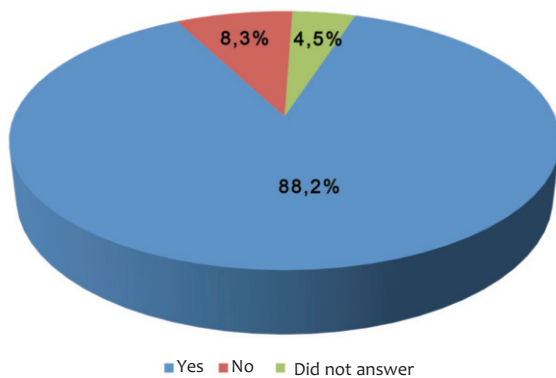
10) Knowledge about dermocosmetic or functional cosmetic products marketed for the treatment of aesthetic skin alte-



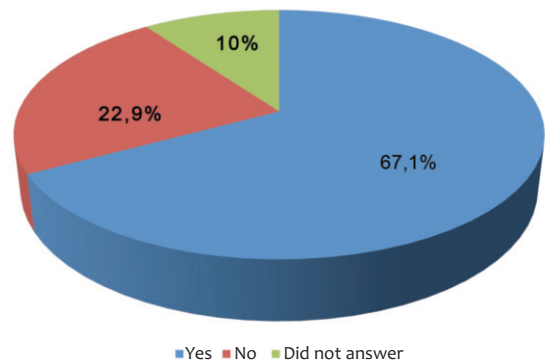
GRAPH 3: (A) Composition of cosmetic products for treating the skin.



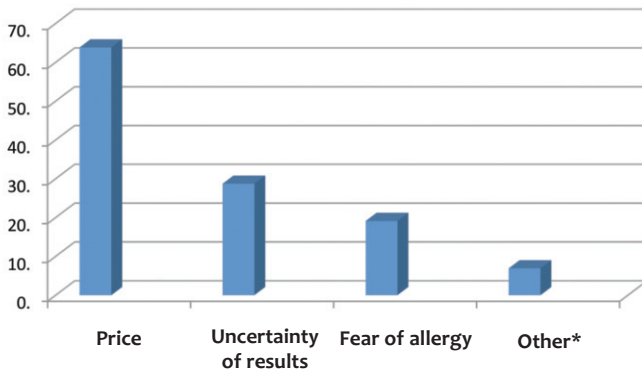
GRAPH 4: Limitations to undergoing treatment with creams*



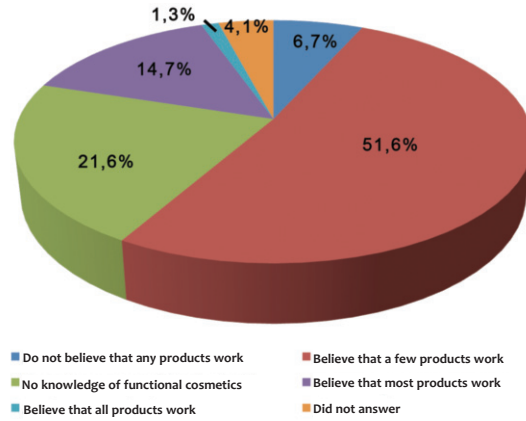
Graph 3: (B) Desire to undergo treatments with creams* in order to prevent the aging of the skin.



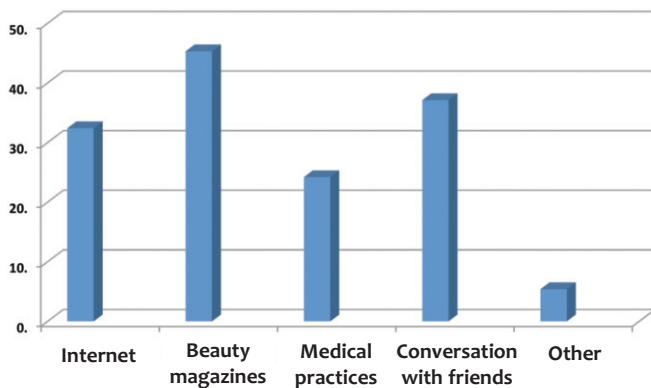
GRAPH 5: Desire to undergo procedures (botulinum toxin, laser, peelings) to prevent the aging of the skin.



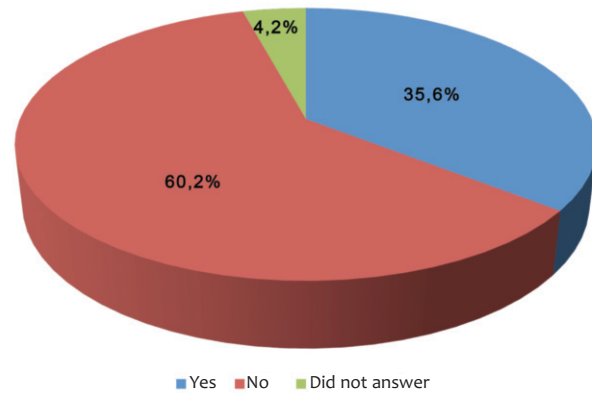
GRAPH 6: (A) Limitations to undergoing procedures (botulinum toxin, laser, peeling) to prevent aging of the skin.



GRAPH 7: Knowledge of dermocosmetics (an explanation was provided) or functional cosmetics marketed for the treatment of aesthetic skin alterations.



GRAPH 6: (B) Sources of information on aesthetic skin treatments.



GRAPH 8: Daily use of sunscreen

rations (an explanation was provided) (Graph 7):

Percentages: 6.7% believed that the products do not work; 14.7% believed that most products work; 51.6% believed that only a few work; 1.3% believed that all function; 21.6% were unaware of functional cosmetics

11) Daily use of sunscreen (Graph 8):

Percentages: 35.6% used sunscreen regularly; 60.2% did not use sunscreen regularly; 4.2% did not answer.

12) Educational level of respondents (Graph 9):

A) Illiterate (-); B) Incomplete primary education (3.1%); C) Complete primary education (3.3%); D) Incomplete secondary education (6.3%); E) Complete secondary education (4.1%); F) Incomplete tertiary education (5.7%); G) Complete tertiary education (38.8%); H) Incomplete higher education; (21%), I) Complete higher education (17.7%).

13) Monthly income of respondents (Graph 10):

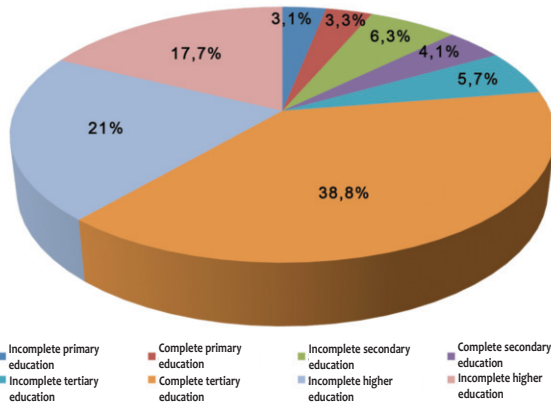
A) Up to R\$545.00 (12.6%); B) from R\$545.00 to R\$1,090.00 (41.6%); C) from R\$1,090.00 to R\$1,635.00 (20.5%); D) from R\$1,635.00 to R\$2,725.00 (9.3%); E) from R\$2,725.00 to R\$5,450.00 (2.7%); F) from R\$5,450.00 to R\$10,900.00 (2.9%); G) over R\$10,900.00 (0.93%). 9.47% did not answer.

DISCUSSION

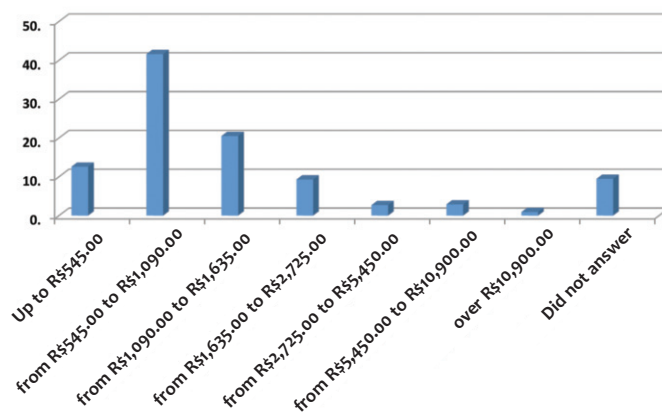
There has been a significant increase in the number of medical cosmetic procedures in the last decade. New products and techniques have been developed, and minimally invasive procedures, such as botulinum toxin injections and dermal fillings, have become popular.¹⁸⁻²¹ On the other hand, an additional cost has emerged: the significant increase in complications related to the procedures.^{22,23} Contemporary dermatologists should be able to implement procedures in a way that prevents complications.^{24,25}

The importance of the correct cosmetic use of creams* for the skin is due primarily to the search for satisfactory results, with the dermatologist being the professional who is most qualified to indicate them. The present study allows the assessment of the population's understanding of cosmetic dermatology, also providing information on the patients' motivations.

Considering that the percentage of the population that goes to dermatology practices is less than the total number of people who undergo cosmetic skin treatments, the authors chose not to research practices or medical outpatient clinics. Instead, volunteers were selected from the general public in the



GRAPH 9: Education level of respondents



GRAPH 10: Monthly income of respondents

selected cities. Due to the fact that patients in practices have evidently already made a decision for treatments overseen by a physician, a bias in the selection of volunteers was avoided.

When analyzing the study's results, it was possible to note that spots are the main aesthetic complaints of women, ahead of acne and of the wrinkle-aging signs group. However, the percentage of products bought to fight wrinkle-aging signs was higher (59.2%) than that bought to treat spots (37.8%). This data emphasizes the current concept of beauty, which is closely linked to younger-looking skin.²⁶

The ratio for the purchase of creams* without and with a prescription issued by a dermatologist is 9:1, with almost 90% of respondents buying without prescriptions and only 10.8% buying with prescriptions, meaning that the vast majority of aesthetic skin treatments are not overseen by a dermatologist.

The majority of respondents reported not knowing the function of most components of the products they buy. Only 2.4% said they knew the function of all components. Most of the products were bought from well-known vendors (57.4%).

Regarding the patients' motivations, the majority of respondents (88.2%) wanted to undergo topical treatments. The

price of treatments (59.3%) and the uncertainty of results (36.3%) were the most frequently mentioned limiting factors for undergoing topical treatments. Among respondents, 67.1% wanted to undergo some aesthetic procedure. Price was also a major limiting factor for undergoing cosmetic procedures (63.8%), followed by the uncertainty of results and fear of pain.

In the present study, it was possible to observe that beauty magazines were the main sources (45.3%) for respondents, followed by the Internet (32.4%), and lastly by physicians' practices. This confirms several citations about the fact that, with the increase in globalization experienced in recent decades, patterns in beauty trends have begun to be heavily influenced by the media.²⁷⁻³¹

As for dermocosmetics, functional cosmetics, or cosmeceuticals, 51.6% of the respondents reported to believe that most cosmeceuticals do not work. Another relevant and alarming fact that has arisen, due to its implication in the prevention of diseases such as skin cancer, is that 60.2% of respondents do not use sunscreen regularly.

In the economic and social sphere, there were important changes that have influenced the data collected. The 2010 Brazilian Census has shown that, in ten years, the educational level of women has continued to be higher than that of men, with the first group having gained more space in the labor market. According to the IBGE (the Brazilian Institute of Geography and Statistics), the analysis by age group showed that in 2011 approximately 63.9% of employed women were between 25 and 49 years old, whereas the percentage of people without education or with an incomplete primary education fell to 50.2% from 65.1%.^{32,33}

The average real income of men rose from R\$1,450 in 2000 to R\$ 1,510 in 2010. Women saw an increase to R\$ 1,115 from R\$982, meaning real gains of 13.5% for women and 4.1% for men. The earning potential of women increased to 73.8% of the average income of men. In 2000, that percentage was 67.7%.^{32,33} Both women and men understand that personal aesthetics are linked to quality of life, health, beauty, and physical and mental well-being. Nevertheless, women's important role in the beauty market is remarkable also due to their increasing access to the labor market.³⁴ Characterization of groups based on the SES parameters of education level and income appears to be considerably significant, as evidenced by the fact that the study covered all social classes.

Few scientific studies in Brazil focus on the population's knowledge about dermatology. The paper entitled "Dermatological diseases in Brazil: epidemiological and attitudinal profile" (*Doenças dermatológicas no Brasil: perfil atitudinal e epidemiológico*) published in 2010, is a pioneering work in which the perception of the lay public, their habits, and attitudes were evaluated in light of various dermatologic pathologies.³⁵

As already mentioned, the objectives of the authors of the present study are to identify in the public's perceptions the major cosmiatric alterations—rather than pathologies—of the

skin, to list difficulties for the realization of dermatologic cosmetiatric treatments, and to find out which sources of information are consulted by the population. It is important to highlight the fact that although the present study was carried out only with female patients (unlike the research carried out by Lupi et al. who also addressed the male population) 35 both studies showed similar results, since some diseases were cited by respondents as aesthetic or cosmetiatric alterations—a fact which confirms and strengthens the consistency of the data presented.

In the study by Lupi et al., pigmentation disorders were the main single cause for a medical consultation for both genders, comprising slightly more than a quarter of consultations (27.6%). Forty percent are divided more or less evenly between allergies, mycoses, and acne, with a slight predominance of mycoses in the male subgroup and allergies in the female subgroup. Moreover, superficial infections, warts and scars stand out in the male subgroup. In the female subgroup, stretch marks/cellulite and wrinkles make up almost all consultations.³⁵

In the present study, the pigmentation disorder referred to as “spots” by the patients, was also the population’s main cosmetiatric complaint. In both studies acne was the second most frequent complaint. The group wrinkles-signs-rejuvenation occupied third place, followed in descending order by stretch marks, warts and moles, cellulite, and scars. Mycoses and allergies amounted to a small percentage in the research on cosmetiatry. The opinion of the authors is that the majority of patients have recognized these entities as pathologies and not as aesthetics.

CONCLUSIONS

Consulting with a dermatologist is of paramount importance, for doubts can be elucidated and patients who have become disbelievers due to ineffective and unassisted treatments, can be guided. It was also concluded that the Brazilian Society of Dermatology should take action in the media, such as printed media, Internet and television in the cosmetiatric field, in which there is biased and unsubstantiated information. ●

*NOTA: A expressão “cremes” foi usada genericamente para todo produto de uso tópico, pois foi o termo que menos gerou confusão nos testes prévios à aplicação dos questionários.

REFERENCES

- Villarejo Kede MP, Serra A, Cezimbra M. Guia de beleza e juventude. 2 ed. rev. e atual. Rio de Janeiro: Senac Editora Rio; 2010. p.13.
- Eco U. História da beleza. Rio de Janeiro: Editora Record; 2004. p.8.
- Hamilton D, Azizzadeh B. Os segredos da beleza de Beverly Hills. São Paulo: Editora Universo dos livros; 2009. p.11.
- Souza A. Antiaging, beleza e juventude em qualquer idade. São Paulo: Editora Alaúde; 2010. p. 16.
- Manela-Azulay M, Cuzzi T, Araújo-Pinheiro JC, Azulay DR, Bottino-Rangel G. Métodos objetivos para análise de estudos em dermatologia cosmética. *An Bras Dermatol*. 2010;85(1):65-71.
- Baumann L, dermatologia cosmética princípios e prática Rio de Janeiro 2004 Editora Revinter pág 197 a 192.
- Junod SW. An alternative perspective: homeopathic drugs, Royal Copeland, and federal drug regulation. *Food Drug Law J*. 2000;55(1):161-83.
- Kligman A. Cosmeceuticals: Do we need a new category?. In: Elsner P, Maiback H, editors. *Cosmeceuticals*. New York: Marcel Dekker; 2000.
- U.S. Food and Drug Administration (FDA). New Drug Application (NDA). Development & Approval Process (Drugs); 2013. [acesso 08 Apr 2013]. Disponível em: www.fda.gov/Drugs/DevelopmentApprovalProcess/HowDrugsareDevelopedandApproved/ApprovalApplications/NewDrugApplicationNDA/
- Brasil. Agência Nacional de Vigilância Sanitária (ANVISA). Câmara de Regulação do Mercado de Medicamentos (CMED). Registro de Medicamentos. [acesso 08 Apr 2013]. Disponível em: <http://portal.anvisa.gov.br/wps/content/Anvisa+Portal/Anvisa/Inicio/Medicamentos>.
- Rogiers V. Efficacy claims of cosmetics in Europe must be scientifically substantiated from 1997 on. *Skin Res Technol*. 1995; 1(1):44.
- Abihpec.org.br [página na internet]. Associação Brasileira de Indústrias de Higiene Pessoal, Perfumaria e Cosméticos (Abihpec). Valor Econômico: Indústria de higiene e beleza deve crescer 12% [acesso 02 Apr 2013]. Disponível em: <http://www.abihpec.org.br/2012/09/valor-economico-industria-de-higiene-e-beleza-deve-crescer-12/>.
- Brasil. IBOPE. PYXIS CONSUMO; 2012. Estimativa de consumo para produtos de beleza atinge R\$36,24 bilhões [acesso 08 Apr 2013]. Disponível em: <http://www.ibope.com.br/pt-br/solucoes/geonegocios/Paginas/Pyxis-Consumo.aspx>
- Sebrae.com.br [página na internet]. Boletim do serviço Brasileiro de apoio às micro e pequenas empresas. O mercado de beleza e estética. [acesso 10 Mai 2013]. Disponível em: [http://www.biblioteca.sebrae.com.br/bds/bds.nsf/8FC77A60FDADC4D983257913005D5F88/\\$File/NT000464FE.pdf](http://www.biblioteca.sebrae.com.br/bds/bds.nsf/8FC77A60FDADC4D983257913005D5F88/$File/NT000464FE.pdf)
- Lowe NJ. Minimally Invasive Treatments and Procedures for Ageing Skin. In: Burns T, Breathnach S, Cox N, Griffiths C, editors. *Rook's Textbook of Dermatology*. 8th. Wiley Blackwell; 2010. p.1-3.
- Ministério do Trabalho e Emprego, Brasil. Relação Anual de Informações Sociais (RAIS). Classificação Brasileira de Ocupações (CBO). Grau de Instrução do trabalhador. [Acesso 01 Maio 2013]. Disponível em: <http://www.rais.gov.br>.
- Alves MTG, Soares JF. Medidas de nível socioeconômico em pesquisas sociais: uma aplicação aos dados de uma pesquisa educacional. *OPINIÃO PÚBLICA*. 2009;15(1):1-30.
- Sarwer DB, Crerand CE. Body image and cosmetic medical treatments. *Body Image*. 2004;1(1):99-111.
- Conrado LA, Hounie AG, Diniz JB, Fossaluzza V, Torres AR, Miguel EC, et al. Body dysmorphic disorder among dermatologic patients: Prevalence and clinical features. *J Am Acad Dermatol*. 2010;63(2):235-43.
- Hexsel D, Almeida AT. Uso cosmético da toxina botulínica. *Porto Alegre: AGE*, 2002. p. 239.
- Betty SA. Procedimientos cosmiátricos en el tratamiento de las arrugas faciales. *Folia Dermatol Peru*. 2001;12(3):58-61.
- El Ammar ABPC, Costa FB, Kalil CLPV, Campos VB. Complications in laser dermatologic surgery Part I: Non-fractional non-ablative lasers. *Surg Cosmet Dermatol*. 2011;3(1):47-53.
- Costa FB, El Ammar ABPC, Campos VB, Kalil CLPV. Complications in laser dermatologic surgery. Part II: fractional and non-fractional ablative laser and fractional non-ablative laser. *Surg Cosmet Dermatol*. 2011;3(2):135-46.
- Azulay RD, Azulay DR. *Dermatologia Cosmética*. In: Azulay DR. *Dermatologia*. 5a ed. Rio de Janeiro: Guanabara Koogan; 2011. p.856-70;
- Baumann L. *Cosmetics and skin care in dermatology*. In: Fitzpatrick TB, Eisen AZ, Wolff K, Freedberg IM, Austen KF, editors. *Dermatology in general medicine*. 7th ed. New York: McGraw-Hill; 2008. p. 2357-8.
- Magalhães GM, Borges MFB, Oliveira PJV, Neves DR. Peeling de ácido láctico no tratamento do melasma: avaliação clínica e impacto na qualidade de vida. *Surg Cosmet Dermatol*. 2010;2(3):173-9.
- Brasilecola.com [página na internet]. Mídia e o culto à beleza do corpo [acesso 05 Mai 2013]. Disponível em: <http://www.brasilecola.com/sociologia/a-influencia-midia-sobre-os-padroes-beleza.htm>.
- Metodista.br [página na internet]. Mídia alimenta padrão de beleza. Meios de comunicação estimulam a manutenção dos padrões de beleza impostos pela indústria da moda e da estética [acesso 05 Mai 2013]. Disponível em: <http://www.metodista.br/cidadania/numero-59/midia-alimenta-padrao-de-beleza>.
- Abril.com.br [página na internet]. Busca pela beleza ideal e os impactos da vaidade em excesso são tema de livro [acesso 05 Mai 2013]. Disponível em: <http://www.abril.com.br/noticias/comportamento/busca-pela-beleza-ideal-impactos-vaide-excesso-sao-tema-livro-428973.shtml>
- Hong S, Tandoc E Jr, Kim EA, Kim B, Wise K. The real you? The role of visual cues and comment congruence in perceptions of social attractiveness from facebook profiles. *Cyberpsychol Behav Soc Netw*. 2012;15(7):339-44.
- Mulgrew KE, Volcevski-Kostas D. Short term exposure to attractive and muscular singers in music video clips negatively affects men's body image and mood. *Body Image*. 2012;9(4):543-6.
- IBGE.gov.br [página na internet]. Instituto Brasileiro de Geografia e Estatística. Censo 2010: mulheres são mais instruídas que homens e ampliam nível de ocupação [acesso em 10 Mai 2013]. Disponível em: http://www.ibge.gov.br/home/estatistica/populacao/censo2010/resultados_gerais_amostra/default_resultados_gerais_amostra.shtm.
- IBGE.gov.br [página na internet]. Instituto Brasileiro de Geografia e Estatística. Mulher no mercado de trabalho: perguntas e respostas [acesso em 10 Mai 2013]. Disponível em: http://www.ibge.gov.br/home/estatistica/indicadores/trabalhoerendimento/pme_nova/Mulher_Mercado_Trabalho_Perg_Resp_2012.pdf.
- Sebrae.com.br [página na internet]. A nova consumidora modifica o mercado de beleza e estética [acesso 10 Mai 2013]. Disponível em: <http://www.sebraemercados.com.br/?p=18597>.
- Lupi O, Nunes S, Gomes Neto A, Pericles C. Doenças dermatológicas no Brasil: perfil atitudinal e epidemiológico. *An Bras Dermatol*. 2010;85(1 Supl 1):S5-19.