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# Determinants of consumer behavior in aesthetic medicine services

## Determinanty zachowań konsumentów korzystających z usług medycyny estetycznej

Aesthetic medicine is constantly developing branch of medical science in Poland. More and more women but also men are still looking for the best treatments to make themselves young and attractive. Most of the treatments does not exclude of a daily life that is why aesthetic medicine is so gaining popularity. The dynamic development with new technologies and ever-smaller pain during treatments results in an increasing interest of the potential patients/consumer. Thanks to that, there are more and more institutions dealing with this field of medicine in Poland. In this article below the author presented the results of the marketing study, which was to determine the determinants of consumer behavior in aesthetic medicine services. In particular, the focus was on the age in which patients for the first time used aesthetic medical treatment, determinants influencing decisions of uses aesthetic medical treatment, criteria for selecting the aesthetic medicine clinic, determinants influencing decisions of uses aesthetic medicine treatment and the most popular services.

**Keywords**

aesthetic medicine, consumer behavior, patient, anti-aging

Medycyna estetyczna to stale rozwijająca się dziedzina medycyny w Polsce. Coraz więcej zarówno kobiet, jak i mężczyzn poszukuje najlepszych zabiegów, by utrzymać młodą i atrakcyjną kondycję skóry i ciała. Większość usług medycyny estetycznej nie wymaga czasu rekonwalescencji, dlatego zyskuje coraz większą popularność. Dynamicznie rozwijające się nowe technologie oraz tworzenie procedur o jak najmniejszej bolesności znacznie zwiększają zainteresowanie potencjalnych konsumentów/pacjentów. Dzięki temu wzrasta liczba nowo powstałych placówek zajmujących się właśnie tą stosunkowo nową dziedziną medycyny. W niniejszym artykule, autor przedstawił determinanty zachowań konsumentów na rynku usług medycyny estetycznej. Szczególną uwagę skupiono na wieku pacjentów/konsumentów podczas pierwszej wizyty w klinice medycyny estetycznej, na określeniu czynników, jakimi kierował się pacjent/konsument podczas wyboru placówki medycyny estetycznej oraz samej usługi, a także na najbardziej popularnych zabiegach.

**Słowa kluczowe**

medycyna estetyczna, zachowania konsumentów, pacjent, anti-aging

JEL: M310, M300

## Introduction to aesthetic medicine

Beauty is a better recommendation than any letter of recommendation used to say, Aristotle. Nowadays, striving to be beautiful and have a slim silhouette is daily life. Especially a women but more and more men uses beauty services like plastic surgery, aesthetic and cosmetic treatments to feel more comfortable with themselves. Still increasing physical attractiveness is universal, while it changes through years (Cutan, 2009). The fastest growing cosmetic procedure in 2017 was Vaginal Rejuvenation, its increase with a 23% from 2016. Followed by the lower body lift, which increased by

22%, and the buttock lift increasing by 17% and rhinoplasty increasing by 11%. But still the most popular cosmetic surgical procedures are breast augmentation, liposuction, and eyelid surgery. On the other hand the most common non-surgical procedures continue to be injectable with Botulinum Toxin, hyaluronic acid and laser hair removal (Ankiel, 2017; <http://www.isaps.org>, 28.08.2018). In Poland interest in aesthetic medicine is constantly increasing. More and more clients of aesthetic medicine practice are looking for information's about available methods for solving their aesthetic problems (Macarz & Prandecka, 2010). Thanks to television programs and

newspapers dedicated to aesthetic medicine and medical cosmetology, but also television advertisements (ads of term lifting calls Zaffiro, produces by ITP S.A., broadcast on the Polish TVN channel). Medical beauty treatments are slowly stopped to be a taboo subject in Poland.

## The concept and outline of the aesthetic medicine market

Aesthetic medicine is a multidisciplinary field of medical science. It contains dermatology, aesthetic surgery, vascular surgery, odontology, and dietetics and aesthetic gynecology. Is located between plastic surgery and cosmetology (O'Neill, 2017; Venkat, 2012). But only a combination of all procedures gives surprising results. The main aim of aesthetic medicine is to improve the attractiveness of patients/consumer. Primarily includes treatment, which task is to slow down the aging processes of the so-called well being of the patient/consumer, but also it should prevent and treat signs of aging the organism (Marcela Betancure, Montoya Castaneda, & Tavera-Mesías, 2017; Gałęba 2011). As well as worth mentioning, aesthetic medicine is a part of medical aesthetology. Is a field of medical science dealing with researching, describing, cultivate, restoring and creating using medical supplies beauty of human body understood as physical attractiveness (Śpiewak, 2013).

The creator of aesthetic medicine is French endocrinologist Jean Jacques Legran. Thanks to him in 1973 established Association of Aesthetic Medicine. And in 1978 four countries (France, Rome, Belgium, & Spain) created Union International de Medicine Esthetique (Dylewska-Grelakowska, 1999). In 1973 Jean Jacques Legran founded the French Society of Aesthetic Medicine in France. This year is considered the official beginning of aesthetic medicine in the world. The beginning of aesthetic medicine in Poland is the 90's twentieth century, thanks to fifteenth founding members.

In 2002, thanks to Andrzej Ignaciuk Ph.D., it began its activity Post — Graduate School of the Aesthetic Medicine, which placed in Warsaw. It is three — years school to which can only be admitted by doctors with actual right to medical practice. Classes are taught by Polish and foreign lecturers (Redaelli & Ignasiuk, 2010). This history of the beginning of aesthetic medicine confirms how new is this field of medicine; it has been 45 years in the world but in Poland only 16 years. And the development is divided in half; one half applies to the preparation and another part to medical devices (Wasiluk, 2016).

In 2014 the value of the global market for aesthetic medicine is 2.7 trillion USD and according

to specialists' estimates in 2019 reaches 4 trillion USD. The Asian market is an international leader. It accounts for 44% of the aesthetic medicine global market. (<http://ollie.pl>, 02.08.2018). In Poland, aesthetic medicine market is developing very dynamically. In 2015 — 2016 was raised 10 — 12% when global market only 8.2% (<http://www.biotechnologia.pl>, 19.07.2018). This increase is due to more and more technological possibilities and also it became more popular for Polish patients/consumers.

According to GFK Beauty report, a statistical Polish citizen devotes 5 hours a week to his beauty, which is an hour more than the global average, and 44% Pole admitted that they really interested especially to appearance (<http://www.newsweek.pl>, 21.07.2018). Thanks to that report, it can be concluded that this is one of the main determinants of the popularity of aesthetic medical treatment in Poland.

## Specification of aesthetic medicine treatment and the patient's profile

The main advantage of the aesthetic medical services is lack of long convalescence period. Recently in leveling the scars and stretch marks, and locally accumulated body fat or face and neck lifting only plastic surgery was available. Nowadays these treatments replaced aesthetic medicine uses fractional ablation and no ablation lasers, cryolipolysis, high intense focused ultrasound, injection lipolysis. Most of the treatments do even cause redness of the skin. And the potential client of aesthetic medicine practice can back to daily life after that kind of medical treatments. But it should be mentioned that there are same aesthetic medical services that need about a week or 4-week convalescence such as fractional ablation lasers, microneedle radiofrequency or trichloroacetic/phenol acid. This procedure use to scar reduction narrowing of expanded pores, leveling stretch marks and complete reconstruction of the top layers of the dermis (Goldberg, 2009).

Aesthetic medicine uses so many tools such as natural and synthetic preparation, lasers and medical devices to do best effects, and not forgetting about correct post-operative home care.

The variety and the number of devices and preparations used for the procedures indicate the great possibilities of the scope of aesthetic medicine. What is more, their quantity is constantly increasing and is being updated to be less painful and more effective.

The patient/consumer deciding to undergo aesthetic medicine treatment must meet certain conditions. First of all patient/consumer should have realistic expectations. Aesthetic medicine is

**Table 1. Preparation and medical devices use in aesthetic medicine treatment**

The preparation used during the treatments		
1.	Botulinum toxin type A	The strongest neurotoxin, injected intramuscularly causes paralysis of the skeletal muscle — muscles cannot tense. The effect is temporary. Used in anti-wrinkle therapies, migraine headaches, and injected intradermal treat hyperhidrosis
2.	Hyaluronic acid	In specialist, fillers are in the form of glycosaminoglycan. Fills wrinkles, allows to the volume the face and used in enlarging lips
3.	Calcium hydroxyapatite	Filler suspended in an ethyl cellulose gel. Is used when filling deep wrinkles and to firming the back of the hand
4.	Polylactic acid	Very deep filler with a large irregular particle, very slow to absorb. Used for very deep wrinkles
5.	Platelet-rich plasma	Taken from the patient blood. Used to rejuvenate the skin of the face and neckline
6.	PDO threads	Used for firming the skin, face and neck lifting and shallow wrinkles
The medical devices used during the treatment		
1.	Ablation fractional lasers	The eCO2 laser, causes the tissues to evaporate. Which is associated with a week of convalescence. It is used to reduce scars and remodeling of the skin
2.	Non-ablation fractional lasers	Fiber optic laser (Er: Glass). The laser beam leads to microdamage of the skin. Used primarily for the reduction of stretch marks, but also is widely used for photobiostimulation of fibroblasts
3.	Diode lasers 805nm	Is used to reduce excessive hair. Works on the principle of selective photothermolysis, causing damage to the hair structures
4.	Nd: YAG lasers	The lasers type Q-switched. Used for reduces hyperpigmentation and eliminates unwanted tattoos
5.	Alexandrite lasers	Laser with a wavelength of 755nm. Is used for hair reduction
6.	IPL	Intense Pulsed Light. Devices for photo rejuvenating of the skin reduce hyperpigmentation and hair removal
7.	HIFU	High Intense Focused Ultrasound. Used for non-invasive lifting
8.	Cryolipolysis	Used for cooling of the fat folds. Thanks to that cooling go to apoptosis of the fat cell, and reduction almost 20% of the locally accumulated fat tissue

Source: author's own elaboration.

not plastic surgery. Despite the fact that it has very large capabilities, it is sometimes unable to replace plastic surgery. The second rule is to specify a specific area of the body that the patient/consumer would like to change. It often happens that patients define the area badly and the procedure does not meet their expectations. A good aesthetic medicine doctor during the consultation should find a problem and suggest to the patient what treatment should focus on. The third principle is internal health. Chronic patients are not completely excluded from aesthetic treatments but during a medical interview they should indicate the condition of the health. In some cases preparation cannot be carried out in tissues for example, in case multiple sclerosis hyaluronic acids cannot be used, while botulinum toxin type A is already safe. The last condition is mental health. Body Dysmorphic Disorder is hypochondriac disease, which consists in perceiving yourself as an

attractive person and exaggerating minor beauty effects. This disorder may be accompanied by anorexia or bulimia. When aesthetic medicine doctor noticed that problem should refer to the patient a psychiatric consultation. Patient after psychiatric treatment can undertake aesthetic medicine treatment (Hodgkinson, 2005).

### **Determinants of consumer behavior in aesthetic medicine services**

The main aim of this study was too the preliminary definition of the determinants of aesthetic medicine and medical cosmetology consumer behavior. The research was conducted using the direct interview method. The interview questionnaire was the research tool. The research was carried out on a sample of 300 respondents.

Selection of the sample was intentional — all of the responders are patient/consumer of Klinika Medycyny Estetycznej dr Sebastian Kuczyński in Poznań/Poland. Detailed research objectives:

- determining the age at which the patients/consumer decided to use the aesthetic medicine services for the first time,
- criteria that the patients/consumer followed during the selection of a particular aesthetic medicine clinic,
- determination of factors affecting the decision to use aesthetic medicine treatments,
- determination the sources which patient/consumer obtained information deciding to use the services of a particular aesthetic medicine clinic,
- defining the patient's loyalty as to the choice of a particular aesthetic medicine clinic,
- determination of the most popular aesthetic medicine treatment.

The scope of the carried out research:

- the scope of the subject: determinants of consumer behavior in the market of aesthetic medical services,
- subjective scope: the consumer of aesthetic medicine,
- time scope: March–April 2018
- spatial scope: Poznań.

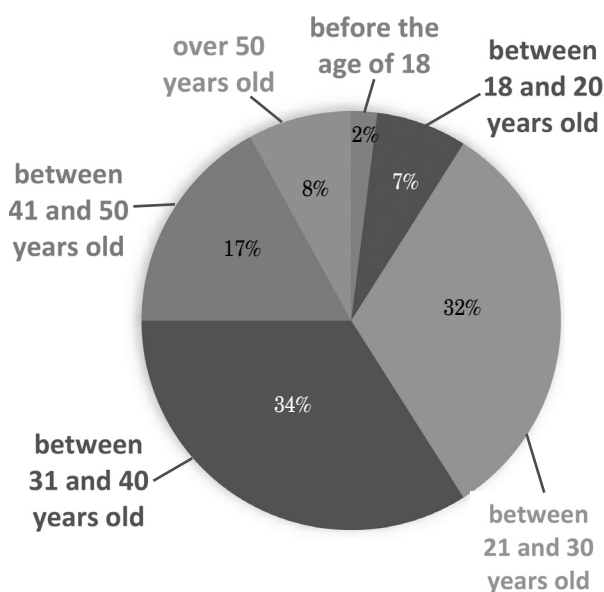
This conducted research was a preliminary introduction to a further research process on the identification determinants of consumer behavior in the market of aesthetic medical services in Poland. Only selected test results are presented in this article.

## Patients/consumer first contact with aesthetic medicine

One of the aims of the study was to determine the age at which clients of aesthetic medicine practice decided to have aesthetic medicine treatment.

Research results indicated that most of the clients of aesthetic medicine practice start using aesthetic medicine treatment between 31 and 40 years old — 34%. In this range of age the aging of face and body becomes more visible that is why women and men, in particular, were trying to bulldoze the signs of aging and above all, especially women want to keep young as long as possible. The second most numerous groups of respondents are clients of aesthetic medicine practice in age between 21 and 30 years old — 32%. Due to the fact that collagen fibers begin to disappear after 25 years old that is why the first signs of aging appear (Jurkowska, 2001). In this group of age, some clients of aesthetic medicine practice what to be preventive before the body starts to age or simply want to eliminate some defect of the beauty that affects their attractiveness. 17% of responders were between age 41 and 50 years old. And 8% of investigated was over 50 years old. The smallest group of respondents were clients of aesthetic medicine practice before the age of 18 — 2% and between 18 and 20 years old — 7%. Usually, these clients of aesthetic medicine practice were struggling with skin problems such as acne, acne scars, and stretch marks.

Figure 1. Age of the responders during the first aesthetic medicine treatment

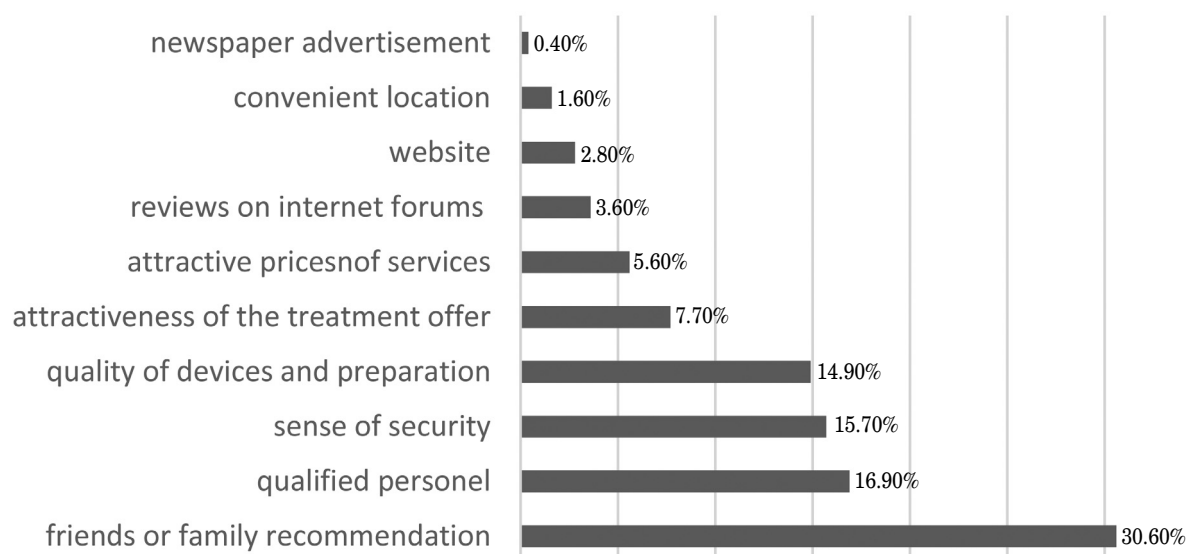


Source: author's own elaboration.

## Determinants of choice of aesthetic medicine clinic by patients/consumers

The next objective of the study was to determine the criteria for selection of specific aesthetic medicine clinic.

As is shown in figure 2 the most frequently chosen criterion was the friends or family recommendation — 30.6 % of the responders. The above indicated that in the case of medical services, 'word of mouth' is still the most effective marketing communication tool. The responders pay attention to the fact that they could learn from friends and family member how the procedure of the treatment will be going through what they will feel during and after the procedure and also how much did they pay for the services. The next factor determining the choice of the medical clinic is qualified personnel — 16.90% and sense of security — 15.70%. Another determinant was the price of the aesthetic medicine treatment — 7.70%. It is worth paying attention to the fact that the prices

**Figure 2. Criteria for selecting the aesthetic medicine clinic**

Source: author's own elaboration.

in Poland clinics are very different. For example in one clinic in Poznań price for face treatment with using fractional ablation laser is 1000 PLN, but in another one in Warsaw is 2500 PLN. This proves that patient compares the prices of services before preceding the treatment (<http://www.realfself.com>, 03.08.2018).

More and more patients decided to beauty tourists, the same patient came to Poland for aesthetic treatment even from United States of America (Religioni & Religioni, 2015). The next factor is attractiveness of the treatment offered — 5,6% and reviews on Internet forums — 3.6%. The least important determinants were convenient location — 1.6%, and newspapers advertisements — 0.4%. Placement of the aesthetic medicine clinic and advertising in the newspaper has no significance for clients of aesthetic medicine practice. As indicated above, patients were able to travel thousands of kilometers to use the service in a specific place in the world.

## Determinants influencing decisions of uses aesthetic medicine treatment

Another aim of this research was to determine the significance of the factors affecting the decisions to use aesthetic medical services. Responders were to determine the significance of

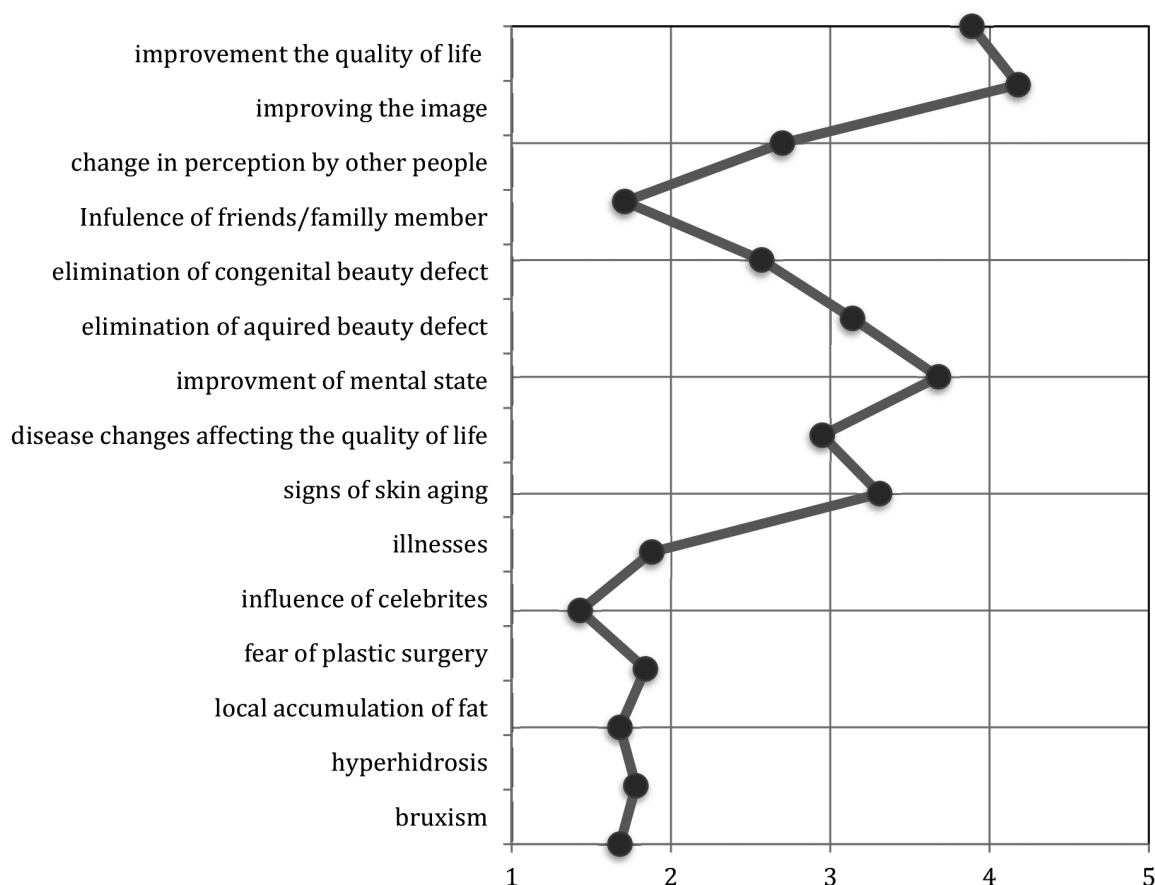
certain factors during which they decided to use the treatment of aesthetic medicine. The survey used a scale from 1 to 5. Where 1 means completely irrelevant and 5 — very important.

Below are the averages of the responses shown in figure 3:

- 'improving the image' — the average answer is 4.18,
- 'improvement the quality of life' — 3.89,
- 'improvement of mental state' — 3.68,
- 'signs of skin aging' — 3.31,
- 'elimination of acquired beauty defect' — 3.14,
- 'disease changes affecting the daily life' — 2,95,
- 'change in perception by other people' — 2.70,
- 'skin illnesses' — 1.88,
- 'fear of plastic surgery' — 1.84,
- 'hyperhidrosis' — 1.78,
- 'influence of friends/family member' — 1.71,
- 'local accumulation of fat tissues' and 'bruxism' — 1.68,
- 'influence of celebrities' — 1.43.

The choice of these factors showed how important it was for respondents to their external appearance, and consequently their sense of attractiveness. Thanks to aesthetic medicine treatments, patients felt much better and their self-esteem increases. The issue should be looked at its factor 'influence of celebrities'; it is marked as the least important. However, after casual conversations with the patients, they often asked specialists about treatments that were performed by well-known people. This case requires a more in-depth study.

Figure 3. Determinants influencing decision



Source: author's own elaboration.

### The most-preferred treatments of aesthetic medicine

One of the aims of this research was to determine frequently chosen treatments of aesthetic medicine. The most popular treatment is hyaluronic acid injections — 12.6%, another equally popular treatment is botulinum toxin type A injections — 11.5%. The third often chosen treatment is laser hair removal — 10.4%. Subsequently, it was selected:

- wrinkles filling — 7.3%,
- vascular treatments — 5.7%,
- chemical peels — 5.1%,
- mesotherapy — 4.0%,
- lips treatment — 3.5%,
- hyperpigmentation treatments — 3.3%,
- non-ablation fractional laser MOSAIC™ — 3.1%,
- cryolipolysis — 2.6%,
- High Intense Focused Ultrasounds — 2.2%,
- Intense Pulsed Light and fractional lasers — 2%,
- platelet rich plasma — 1.8%,
- face volumetric and hyperhidrosis — 1.5%.

The results showed how important and popular the facial treatments were for clients of aesthetic

medicine practice. The most frequently chosen treatments were minimally invasive. The least popular treatments such as MOSAIC™ and fractional lasers are more invasive and needs some time to recover. But still, facials were the most important for clients of aesthetic medicine practice.

### Summary

Conducted research regarding the determinants of behavior of the consumers using aesthetic medicine treatments in Klinika Medycyny Estetycznej dr Sebastian Kuczyński in Poznań. It was preliminary and questionnaire due to the selection of the research sample. It is the starting for further advanced research, which will be carried out in the five aesthetic medicine clinics in Poland. This research shows patients/consumer awareness and the need to constant improvement of their external appearance. Clients of aesthetic medicine practice appreciate the recommendation issue by friends or family member before they decided for aesthetic medical services.

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## PWE poleca



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