

Ethical Cosmetology as a Vector of Public Health: Justification of the National Importance of Non-Invasive Practices

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Abstract. *Against the background of the growing psycho-emotional vulnerability of the population and the need for safe approaches to appearance care, non-invasive aesthetic methods are gaining particular importance. They are considered an ethically justified and socially acceptable alternative to invasive interventions. The purpose of the study is to substantiate the national importance of the spread of non-aggressive procedures as a safe alternative to invasive interventions. Materials and methods. The study used the method of systematic literature review in accordance with the requirements of PRISMA. Scientific publications from 2019–2025 were analyzed, from the scientometric databases PubMed, Scopus and Web of Science. Results. Data analysis shows an increase in the frequency of non-invasive procedures from 58% in 2020 to a projected 74% in 2024. Statistical and clinical data confirm higher levels of customer satisfaction, lower levels of side effects and a significant reduction in psychological distress scores comparable to the results of invasive interventions. Non-invasive aesthetic cosmetology is considered as a component of a preventive model of public health, with possible integration into social and rehabilitation programs for vulnerable groups of the population. The work emphasized the need for ethical rethinking of beauty practices and patient expectations. Conclusions. Non-invasive aesthetic practices have proven their effectiveness, safety and psychological acceptability, which justifies their importance for modern ethical cosmetology and public health.*

Keywords: *ethical cosmetology, public health, non-invasive methods, aesthetic safety, prevention, emotional well-being.*

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Introduction. In recent years, there has been an increase in the demand for aesthetic procedures, accompanied by a paradigm shift from aggressive surgical interventions to non-invasive, physiologically safer procedures. This is due not only to the desire to improve appearance, but also to the need to maintain physical and psycho-emotional health, which is a key component of public well-being [1; 2; 3]. In this context, cosmetology goes beyond aesthetic correction and becomes a tool for improving the quality of life, psychological stability and social adaptation [4; 5; 6].

Studies show that non-invasive aesthetic interventions (ultrasound, microcurrent, LED procedures, peels, massages) can help reduce anxiety, stress, depression, improve self-esteem, and help develop a positive body image without harming physical health [7; 8]. There is a trend toward fewer side effects, fewer complications, and higher levels of client satisfaction [9; 10; 11].

However, the rapid growth of the aesthetic industry, the pressure of social networks and the desire for beauty lead to an increase in demand for invasive procedures, violation of the principles of informed consent, ignoring the psycho-emotional state of clients [2; 4]. Young women, adolescents, people suffering from depression or post-traumatic stress disorder remain particularly vulnerable [8].

That is why the direction of development of modern cosmetology should be oriented towards non-invasive, ethically balanced, preventively oriented interventions that provide not only external, but also psycho-emotional well-being. Ethical cosmetology in this format appears as a component of public health, requiring an interdisciplinary approach, regulatory support and professional responsibility [4; 6].

The purpose of the work is to substantiate the national importance of the spread of non-invasive procedures as a safe alternative to invasive interventions.

To achieve the goal, the key ethical principles that regulate the interaction of an aesthetic cosmetology specialist and a client in the conditions of the modern market were identified; the impact of non-invasive procedures on the psycho-emotional state and satisfaction of clients was analyzed, the level of traumatization was compared; risks and side effects between invasive and non-invasive cosmetology methods were compared; the role of a preventive and psychosocial approach in forming a culture of safe appearance care was determined; the national importance of non-invasive practices was substantiated.

Materials and methods. The study used a systematic literature review method in accordance with the PRISMA requirements. The methodological basis is based on a qualitative content analysis of publications published in the PubMed, Scopus and Web databases. of Science over the last 5 years (2019–2025).

Results. Since ancient times, aesthetics and the perception of beauty have been of great importance in different cultures. and nations, which has had a significant impact on social norms and personal perceptions. With the advent of technological advances in medicine and surgery, the ability to enhance one's appearance has become more accessible and popular. The American Society of Plastic Surgeons reports that minimally invasive procedures have experienced an increase, in particular, the use of botulinum toxin type-A by 878% from 2000 to 2019, and chemical peels have increased by 21% during this period [12]. This growth reflects not only the advancement of technology and the safety of aesthetic procedures, but also a change in their perception by society. Modern aesthetics, which are actively covered in the media, have contributed to the emergence of an era in which personal image can be controlled and modified to conform to often idealized and globalized standards of beauty. Patient satisfaction studies in this field have shown that outcomes are evaluated in terms of physical improvements, as well as how these changes affect a person's self-esteem and quality of life [13; 14]. Patients seek aesthetic treatments to improve their appearance and psychological and emotional well-being. In addition, the continuous development of aesthetic techniques has allowed the development of safer and more effective procedures, which

contributes to increased patient satisfaction. Innovative techniques have a positive impact on the improvement of procedures, proving their effectiveness in improving skin texture and the appearance of wrinkles without the associated risks. To improve the effectiveness of outcomes, it is necessary to develop digital competencies in aesthetic medicine specialists [6; 15; 16; 17].

To compare the effectiveness and safety of invasive and non-invasive aesthetic methods, an analysis was conducted based on generalized data from clinical practice, literature reviews, and data on the psychoemotional state of patients before and after procedures, the influence of social networks on the perception of body image, and ethical aspects were determined (Table 1).

Table 1

Comparative characteristics of invasive and non-invasive aesthetic cosmetology procedures

Parameter	Invasive procedures	Non-invasive procedures
Level of trauma	High	Minimal or absent
The need for anesthesia	Often needed	Not needed
Recovery time	5–14 days	Missing or 1–2 days
Likelihood of side effects	Medium or high	Low
Psycho-emotional stress	High	Moderate or absent
Customer satisfaction level	High (with risk of regret)	High and stable
The need for repeated interventions	Sometimes	Often, but less risky
Availability and cost	High cost	Reasonable cost
Ethical risks	High (advertising)	Low, controllable

Developed by the author based on the Donahs [3; 4; 8-11].

Most of the studies included in the review report significantly lower rates of side effects in patients who undergo noninvasive procedures [6; 8]. In addition, such clients are less likely to experience post-interventional frustration, emotional exhaustion, or decreased self-esteem, which are often observed after surgical changes in appearance [5]. This supports the idea that in aesthetic medicine, the effect of the procedure should be evaluated not only by visual parameters, but also through the prism of psychological well-being.

It should be noted separately that non-invasive interventions make it possible to build a long-term strategic model of caring for appearance, which is based on gradual, delicate improvement, rather than radical transformations. As Bunces notes Larco, et al. al. (2024), this format of intervention minimizes the risks of identity loss, which is often observed among people who have undergone surgical manipulations without sufficient psychological support [15]. Combined with the effective effect on reducing anxiety and improving self-perception, non-invasive aesthetics acquires the properties of a preventive psychological intervention [7].

As a result, significant differences were found between invasive and non-invasive cosmetic methods on a number of clinical and ethical indicators. The analysis shows that non-invasive procedures are more ethically acceptable in a broad social context, as they do not involve surgical intervention; do not require deep medical intervention with potential harm;

reduce anxiety associated with expectations and consequences; are better aligned with a preventive approach in the public health system.

In addition, over the past five years, global aesthetic practice has seen an increase in the popularity of non-invasive. This is confirmed by market data and surveys: over 70% of clients seeking aesthetic correction services in the EU and the USA in 2022–2024 chose non-invasive or minimally invasive interventions (Fig. 1) [6; 15].

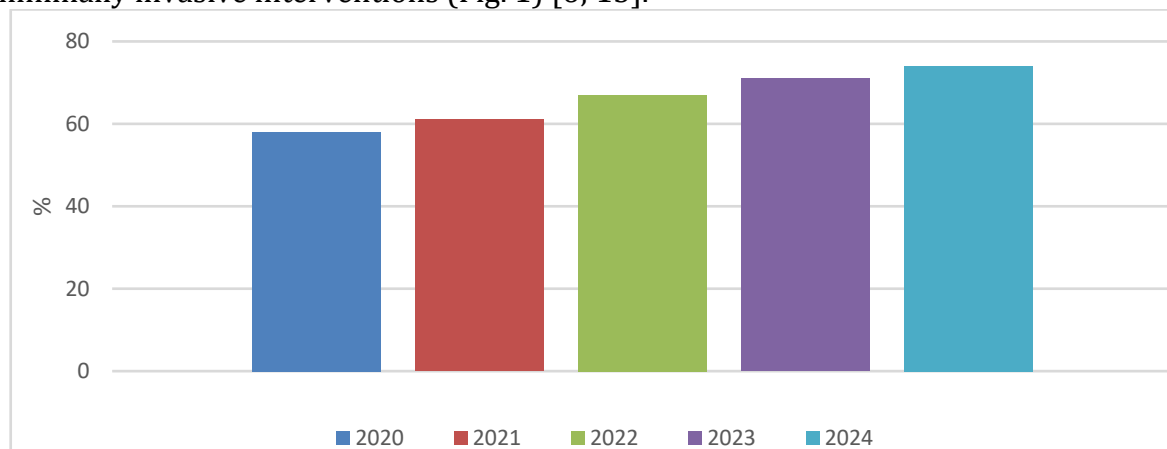


Figure 1. Frequency of choosing non-invasive aesthetic medicine procedures (analysis for the period 2020–2024)

Developed by the author based on Donah [3; 4; 6; 15].

One of the key factors in this change is the increased awareness of patients about the risks of invasive procedures. Studies by Satriyasa (2020) [9] indicate that even when medical standards are met, surgical interventions are often accompanied by side effects, psychological stress, periods of social maladjustment, and decreased emotional comfort in the postoperative period. Against this background, non-invasive procedures are perceived as physiologically safe, emotionally acceptable [8]. Non-invasive techniques, such as botulinum toxin type A-injections, are becoming increasingly popular due to their rapid recovery and safety. In addition, non-invasive procedures reduce the stress associated with long-term care after the procedure, less pain and discomfort in the person, which improves overall patient satisfaction with the procedure. These aesthetic interventions focus on improving visible and expressive areas of the face, such as the eyes, nose, and mouth, as they play a significant role in interpersonal communication and self-esteem in the perception of youth. In this context, appearance and self-esteem are inextricably linked to psychological and emotional well-being. Aesthetic procedures can lead to significant improvements in quality of life, provided that patients have realistic expectations and receive adequate follow-up [3; 4; 6; 18].

The development of technological capabilities and the availability of information contributes to a change in the view on the choice of methods of aesthetic cosmetology, patients increasingly choose more natural methods to improve and maintain their appearance, rather than coordinate changes in appearance [4]. In addition, the influence of social media has increased, which, on the one hand, form aesthetic requests, and on the other hand have become a platform for educational campaigns about the risks of invasive procedures. Hetz (2025) indicates that for the first time in the last decade, the level of requests for “face modification” decreased, while queries for “glow up” or “natural skin lift” have increased dramatically, confirming the reorientation of customers towards less traumatic technologies.

From an analytical point of view, the increase in the frequency of choosing non-invasive procedures demonstrates not a random, but a stable linear dynamics, which indicates the systemic nature of this trend in the practice of aesthetic medicine clinics [7]. There is a clear integration of non-invasive interventions in the public health system, in particular due to their

potential in preventing anxiety disorders, forming a positive self-perception and reducing the costs of rehabilitation after traumatic events. Which indicates the need for multidisciplinary implementation of ethical cosmetology in medical and social programs [19; 20; 21].

Therefore, the trend towards non-invasive methods in cosmetology is not simply technological or market-driven, it reflects an ethical evolution of the field, in which the patient ceases to be the object of transformation and becomes the subject of care. This transition requires not only the adaptation of clinical practices, but also the renewal of professional ethics, standards of informed consent and the regulatory framework in the field of aesthetic medicine.

In the context of the transformation of the Ukrainian healthcare system, post-war recovery and increased levels of psycho-emotional stress among the population, the development of ethical cosmetology focused on non-invasive practices is of great importance. Unlike surgical methods, non-invasive interventions are not only less traumatic, but also capable of performing the function of psychosocial care. Thus, it was found that over 45% of Ukrainians in the current conditions of war challenges have symptoms of anxiety, and 25% are diagnosed with clinically significant depressive disorders. In such a period, cosmetology, which was previously perceived as an element of aesthetic improvement, is increasingly acting as a factor in restoring the psycho-emotional state, which contributes to the stabilization of the emotional state, increasing subjective control over the body and restoring the basic level of self-esteem [4; 5; 22; 23]. A study by Pereira, Hassan (2022) [3] proves that even minimal cosmetic interventions, such as botulinum toxin injections or microcurrent stimulation, have a positive effect on quality of life indicators and the psychological well-being index. Similar effects are also observed after LED procedures and structural facial massage [1; 20].

Of great importance for establishing the effectiveness of cosmetic practice is the level of patient satisfaction after procedures. It was found that the level of patient satisfaction with their appearance and psychological state increased significantly after non-invasive procedures. Thus, injections of botulinum toxin and fillers increased satisfaction by 28–36% compared to baseline [4; 5]. Psychological consequences - anxiety and depression. In the observation panel, up to 22–26% of patients reported postoperative anxiety or depression after invasive procedures (e.g., rhinoplasty). Whereas, the level of such psychological impact after non-invasive procedures did not exceed 5% [10]. In the works of Bin Rubaian and al. (2024) demonstrated that non-invasive injection interventions affect the psychological and social functioning of patients, namely, the level of social adaptation increases, internal tension decreases, and self-image assessments improve [4].

It should be noted that invasive procedures are accompanied by the risk of post-interventional complications (infection, hematoma, scarring), which in 8–11% of cases require repeated consultation or medical care. This creates an additional burden on the healthcare system. In contrast, non-invasive procedures significantly reduce the likelihood of complications and do not require clinical monitoring or hospitalization. In addition, in times of economic instability, it is important to consider the factor of accessibility of interventions. As indicated by Fedorchenko (2024) [21] and Hoffman, Fabi (2022) [5], non-invasive methods have a shorter rehabilitation period and do not require a significant interruption of work activity.

The structure of aesthetic medicine clients is dominated by women aged 30–55, who are a socially active part of the population and who bear the key burden in education, healthcare, child and elderly care. Supporting their psychophysical state has not only individual but also socially functional value. In this context, non-invasive cosmetology appears as part of a preventive model of women's health care [3; 8].

Non-invasive interventions almost do not create high-risk situations, do not require anesthesia or surgery, and, accordingly, reduce the ethical burden on the specialist. Buttura da

Prato study and al. (2024) demonstrate that such methods are more consistent with the principle of autonomy, as they do not involve deep medical intervention and do not significantly change the personal image [4]. This is of particular importance in Ukraine, where the issue of distrust of medical interventions remains socially sensitive [6]. Research findings support a growing trend of trust in non-invasive aesthetic procedures as a safer, psychologically and ethically sound alternative to invasive procedures. This is consistent with the findings of the Reza study. and al. (2025), which demonstrates a clear correlation between the choice of a non-invasive procedure and increased client satisfaction in the long term [6].

The current public health model in Ukraine, which focuses on early risk identification, prevention of chronic disorders, and preservation of mental health, allows for the integration of non-invasive cosmetology into the system of complementary practices of psycho-emotional support. Such interventions are already used in European countries in programs for post-traumatic conditions, in particular among veterans and internally displaced persons [1; 19; 24; 25].

In modern aesthetic practice, the line between medical and commercial standards is becoming blurred, requiring clear ethical regulation. In the study by Buttura da Prato and al. (2024) emphasized that only patient-centered approaches based on transparent information, risk minimization, and attention to the client's psycho-emotional state meet the standards of humanistic medicine [4]. Non-invasive methods, such as microcurrent therapy, LED technologies, and manual techniques, most closely meet these criteria, as they are not associated with intervention in the tissue structure, do not cause significant pain, or a long rehabilitation period [9].

The growing popularity of non-invasive methods in the world and in Ukraine indicates an ethical reorientation of client requests from the desire for radical intervention to care, preservation, delicate support of appearance without loss of authenticity. The national significance of non-invasive aesthetics lies in its potential to be integrated into the public health system as a tool for the prevention of psycho-emotional disorders, support for the social functioning of the population, and reduce the burden on the medical system. In this regard, it is advisable to consider non-invasive aesthetic practices not only as a component of private medical services, but as an ethically justified, socially safe and preventively effective practice that has strategic value for the sustainable development of the healthcare system in Ukraine.

The issue of the ethical responsibility of a cosmetologist deserves special attention. In the context of public pressure caused by social networks and beauty ideals, non-invasive techniques create a space for humane support of the client, without imposing expectations, without manipulation by the fear of aging, with a focus on caring for and preserving oneself.

Conclusions. As a result of the review, it was found that non-invasive aesthetic methods are not only a safer alternative to invasive interventions, but also constitute an ethically justified and socially responsible direction of cosmetology development.

Non-invasive interventions have a lower risk of side effects, minimal trauma and do not require a long recovery period. This ensures their high physiological acceptability in daily clinical use. Analysis of modern research has confirmed that such procedures significantly affect the psycho-emotional state of clients, reduce the level of anxiety, stress and depression, improve the level of self-esteem and contribute to the stabilization of the emotional state. Thus, non-invasive cosmetology performs an auxiliary psychosocial function, which is especially relevant in conditions of increased vulnerability of the population, in particular after the war.

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