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## CONSUMER ATTITUDES, PREFERENCES AND MARKET TRENDS IN NUTRICOSMETICS: A QUANTITATIVE STUDY

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**Abstract:** Nutricosmetics represent an innovative category of products that combine the principles of nutrition and cosmetology with the aim of improving appearance and health through internal care. Their main function is to promote cellular regeneration, protect against oxidative stress, and prevent aging. The aim of this research is to analyze consumers' attitudes, perceptions, and preferences regarding nutricosmetics, as well as to identify the key trends shaping the consumption of this product category. The study is based on a quantitative approach conducted through an online survey with 50 respondents aged 18 to 55. Data were collected using a structured questionnaire consisting of demographic questions, questions related to cosmetic habits, awareness and use of nutricosmetics, and Likert-scale items for measuring attitudes. The questionnaire was distributed via social media and email, while the data were processed using MS Excel and Google Forms/SPSS analytics, analyzing frequencies, percentages, and correlations among key variables. The results indicate that nutricosmetics are becoming increasingly popular among consumers, especially women aged 25 to 45. The most preferred ingredients are collagen (62%), hyaluronic acid (45%), and biotin (53%). The highest level of trust is expressed toward products with scientifically proven efficacy, natural composition, and clean-label formulations. Social media emerged as an important source of information and an influential factor in purchasing behavior, highlighting the role of digital trends and influencer marketing in shaping consumer habits. Although numerous benefits are perceived, respondents also demonstrate awareness of potential risks associated with improper use, emphasizing the need for professional consultation. Nutricosmetics are a rapidly growing market segment that fits well with modern wellness and holistic beauty trends. Brands that provide effective, innovative, natural, and transparent products have the highest potential for success, as consumers increasingly look for a complete, lifestyle-aligned experience rather than just a single product.

**Keywords:** nutricosmetics, consumers, attitudes, survey, cosmetic trends.

### 1. INTRODUCTION

Nutricosmetics, also referred to as “ingestible beauty” products, represent a rapidly evolving category that merges nutritional science with dermatology to promote skin, hair, and overall aesthetic benefits through internal supplementation. The concept is grounded in evidence showing that nutrients, bioactive compounds, and antioxidants can influence skin physiology, support collagen synthesis, reduce oxidative stress, and slow visible aging processes (Biesalski, 2016; Katiyar et al., 2021). Scientific reviews highlight that compounds such as collagen peptides, hyaluronic acid, carotenoids, polyphenols, probiotics, and vitamins play key roles in improving skin hydration, elasticity, and photoprotection, supporting the growing interest in beauty-from-within approaches (Asserin et al., 2015; Czajka et al., 2018; Saeidian et al., 2023). Consumer demand for nutricosmetics has grown alongside broader shifts toward holistic wellness, natural ingredients, and preventive self-care. Research suggests that individuals increasingly perceive beauty, health, and nutrition as interconnected dimensions of well-being (Buczowska & Kozłowska, 2020). At the same time, digital media and influencer communication have intensified awareness and adoption of ingestible beauty products, shaping attitudes and trust toward these formulations (Kim & Kim, 2020). Despite their popularity, scholars emphasize the need for stronger clinical validation, clearer regulatory frameworks, and improved consumer education to ensure safe and effective use (Sugimoto et al., 2020; Kaur et al., 2022).

Nutricosmetics, particularly oral collagen peptides, have been shown to improve skin hydration and strengthen the skin barrier by increasing natural moisturizing factors and supporting dermal collagen density (Polonini et al., 2021). They may also enhance skin elasticity and reduce wrinkles, contributing to smoother and firmer skin over time (Lee et al., 2023). Against this background, the aim of this research is to analyze consumers' attitudes, perceptions, and preferences regarding nutricosmetics and identify the key factors shaping their consumption in the current beauty and wellness landscape.

## 2. MATERIALS AND METHODS

The objective of this research is to analyze consumers' attitudes, perceptions, and preferences regarding nutricosmetics, as well as to identify the key trends that shape the consumption of such products. A quantitative data collection method was applied in the study through an online survey aimed at examining the opinions of end consumers. A structured questionnaire was used for data collection, distributed via social media and email. The questionnaire included: Demographic questions (gender, age, education, place of residence), Questions about skincare and cosmetic habits, Questions about the use and knowledge of nutricosmetics, Attitude scales (Likert scale 1–5), Open-ended questions for free opinions and recommendations. The research was conducted during the period [insert date] on a total of 50 respondents. The target group consisted of women and men aged 18 to 55, with a particular focus on consumers who regularly use cosmetic products and/or dietary supplements. The data were processed using MS Excel and SPSS/Google Forms analytics, where frequencies, percentage distributions, and correlations between key factors (age, use of nutricosmetics, attitudes, etc.) were analyzed.

## 3. RESULTS

### 3.1. General Information

The survey included participants from various age groups and educational backgrounds. The majority belonged to the 26–35 y (38 %) and 36–45 y (24 %) age categories, indicating that interest in nutricosmetic products is highest among young and middle-aged adults (Table 1). Most respondents were female (70 %), which is expected given that women represent the primary consumer group for cosmetic products.

*Table 1. Age Distribution*

Age Group/years	Percentage (%)	Number of Respondents (out of 50)
18–25	20	10 respondents
26–35	38	19 respondents
36–45	2	12 respondents
46–60	18	9 respondents

Source: Authors research

Regarding education (Table 2), most participants had higher (university) education (50 %), high education (20 %), Doctoral studies (20 %) suggesting that the topic may be more appealing to individuals with a higher level of awareness.

*Table 2. Education level*

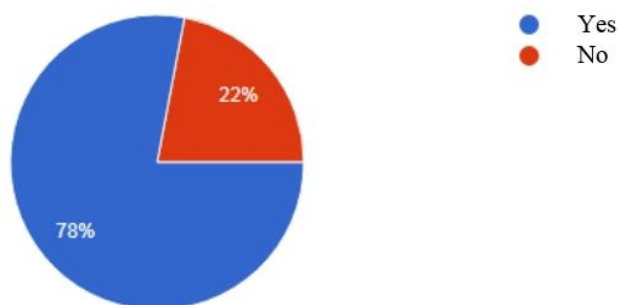
Education Level	Percentage (%)	Number of Respondents (out of 50)
Secondary Education	50	25 respondents
Higher/University Education	30	15 respondents
Postgraduate/Doctoral Studies	20	10 respondents

Source: Authors research

### 3.2. Knowledge of nutricosmetics

A large portion of respondents (78 %), stated that they have heard of the term nutricosmetics (cosmeceuticals), showing that the concept is becoming more well-known (Fig. 1). The most common source of information (**Multiple Answers Allowed**) was the internet and social media (26 participants), followed by friends/family and health professionals (pharmacists or doctors) (12 participants).

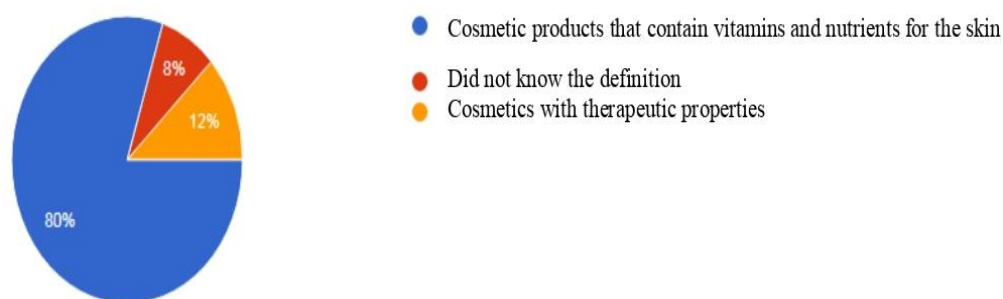
**Figure 1. Awareness of nutricosmetics among respondents**



Source: Authors research

When asked to define nutricosmetics (Fig. 2), most respondents associated it with cosmetic products that contain vitamins and nutrients for the skin (80 %), while a smaller percentage did not know the definition (12 %), highlighting the need for further education. Some respondents indicated that they saw them as cosmetics with therapeutic properties (8 %).

**Figure 2. Definition of nutricosmetics among respondents**



Source: Authors research

### 3.3. Use of nutricosmetic products

A significant number of respondents reported that they have used nutricosmetic products (70 %), while a smaller group was unsure whether the products they use fall into this category (30 %). The most commonly used products (Table 3) were: serums containing vitamins (A, C, E) (28 responses); collagen-based products (22 responses); creams with hyaluronic acid (23 responses); beauty supplements (hair, skin & nails) (16 responses).

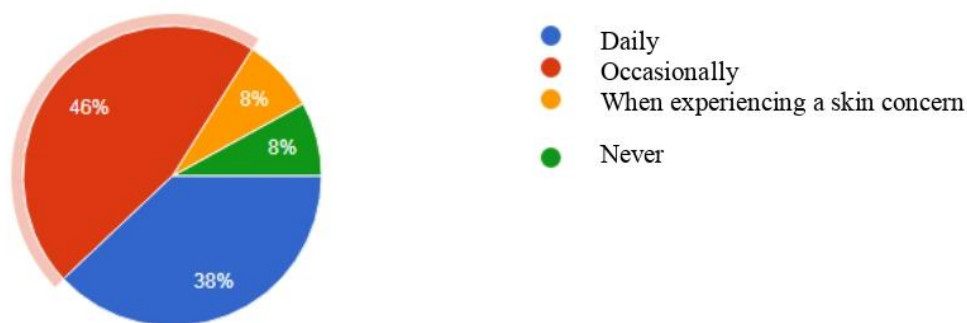
**Table 3. Types of nutricosmetic products used by respondents (Multiple Answers Allowed)**

Product Type	Number of Responses	Percentage (%)
Vitamin serums (A, C, E)	28	56
Creams with hyaluronic acid	22	44
Collagen-based products	23	46
Beauty supplements (hair, skin & nails)	16	32
Other	8	16

Source: Authors research

Regarding frequency of use (Fig. 3), most respondents reported using these products occasionally (46 %), while fewer used them daily (38 %) or only when experiencing a skin concern (8 %).

Figure 3. Frequency of nutricosmetc's use



Source Authors research

### 3.4. Attitudes and Perceptions

Participants generally showed a positive attitude toward nutricosmetic products. Most respondents considered them to be effective (60 %), while a notable portion believed they were partially effective (28 %). When it comes to consulting professionals before purchasing, most respondents stated that they sometimes (54 %) or never (26 %) seek expert advice (Table 4). This indicates that decisions are often based on personal preference, online recommendations, or marketing influence rather than professional guidance.

Table 4. Consultation with professionals before purchasing nutricosmetic products

Response Option	Number of Responses	Percentage (%)
Always	10	20
Sometimes	27	54
Never	13	26

Source: Authors research

A large majority expressed interest in receiving more information (58 %) or education (38 %) about nutricosmetics, suggesting high engagement and a need for accessible, reliable educational materials.

## 4. DISCUSSIONS

The identification of consumer trends and needs plays a crucial role in understanding the rising popularity of nutricosmetics. The findings reflect a dynamic shift in consumer behavior, influenced by broader societal changes, technological development, and the growing emphasis on holistic well-being. In recent years, both globally and locally, new patterns of consumption have emerged, shaping the direction and growth of the nutricosmetics industry. A dominant trend is the adoption of a holistic approach to beauty, commonly referred to as “beauty from within.” Consumers are increasingly seeking integrated solutions that combine both internal and external care. This shift indicates a broader acceptance of the idea that beauty originates from overall health, supported by the intake of nutrients, antioxidants, and functional supplements. Consequently, there is a growing demand for synergistic products that merge nutritional and cosmetic benefits. Another significant development is the heightened interest in functional, evidence-based formulations. Consumers are showing greater trust in products containing clinically tested active ingredients such as collagen peptides, hyaluronic acid, and biotin. This trend signals a transition from marketing-driven choices to scientifically grounded consumer decisions. Transparency, clear labeling, and proof of efficacy are becoming critical expectations. Simultaneously, preference for natural, organic, and clean-label products continues to grow. Many consumers express concern about additives, preservatives, and genetically modified ingredients, leading to an increased demand for clean formulations, vegan products, and organic supplements. This shift aligns with wider health and sustainability movements that emphasize purity and environmental responsibility. Preventive and anti-aging strategies also strongly influence consumer choices. Younger demographics—particularly women aged 25 to 45—are increasingly adopting anti-aging routines as part of their daily care. This indicates a shift from reactive to proactive approaches, with consumers seeking long-term, sustainable solutions rather than quick corrective methods. Personalization has emerged as a key driver of innovation. Brands offering customized solutions based on skin type, lifestyle, age, or even genetic predisposition are gaining traction. The growing interest in vitamin testing, deficiency analysis, and DNA-based recommendations

highlights an evolving trend toward tailored nutrition and smart supplementation. Digital influence plays an equally important role. Platforms such as Instagram, TikTok, and YouTube shape the way consumers discover, evaluate, and choose nutricosmetic products. Visual appeal, lifestyle integration, and transparent online communication contribute significantly to purchasing decisions, underscoring the importance of digital marketing and influencer engagement. Finally, sustainability and ethical production have become central considerations for modern consumers. Eco-friendly packaging, cruelty-free testing methods, and ethically sourced ingredients are increasingly perceived as essential standards rather than optional attributes. As environmental awareness rises, consumers expect brands to demonstrate responsibility and commitment through credible certification and transparent practices. Overall, the discussion highlights that the nutricosmetics market is driven by a combination of scientific validation, personalized solutions, digital engagement, and ethical values. To achieve long-term success, brands must align with these evolving consumer expectations and integrate effectiveness, transparency, sustainability, and innovation into their product offerings.

## 5. CONCLUSIONS

The research clearly shows that nutricosmetics are gaining increasing popularity among consumers, especially among women aged 25 to 45. Preferences are shifting toward products that offer a holistic approach to beauty—from the inside and the outside. Consumers seek functional, scientifically supported formulations that provide visible results and have a transparent composition. There is a noticeable rise in trust in products with active ingredients such as collagen, hyaluronic acid, and biotin. There are strong expectations for natural, organic, and “clean-label” products, free from harmful additives and produced in an ethical manner. At the same time, social media has a significant impact on consumer awareness and purchasing decisions. Personalized solutions, digital aesthetics, and the convergence with the wellness concept further stimulate consumption. However, despite the numerous benefits, there are potential risks associated with improper use, such as interactions with medications or overdosing on certain nutrients. Therefore, proper awareness and professional guidance are necessary when selecting and using such products. In the future, the most successful brands will be those that combine effectiveness, ethics, naturalness, and innovation. Consumers do not want just a product—they seek a complete experience that aligns with their modern, conscious, and healthy lifestyle.

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