

Patient Expectations and Reality in Aesthetic Medicine – Systematic Literature Review

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Abstract

This systematic literature review examines the complex relationship between patient expectations and realistic outcomes in aesthetic medicine. Driven by the growing prevalence of social media trends and shifting beauty ideals, the demand for aesthetic treatments has significantly increased in recent years. The analyzed studies address psychosocial and ethical dimensions, highlighting key themes such as the influence of social media platforms such as TikTok, Instagram, or Facebook, which promote unrealistic beauty standards and foster exaggerated and often unattainable patient expectations. Practitioners usually feel pressured to fulfill patient requests that conflict with their clinical safety standards or own professional judgment, leading to ethical challenges. This article demonstrates that transparent communication, evidence-based decisions, and practitioner trust often drive patient satisfaction. Generational differences reveal that social media influences younger patients and aspire to cosmetic perfection, whereas older patients prioritize natural results and safety. A significant research gap exists in examining the long-term psychosocial effects of aesthetic procedures on patients' mental health, self-esteem, and social well-being. The need for personalized communication strategies is shown to address these unrealistic expectations effectively. Future research could analyze the impact of social media on patient decision-making, cultural differences driving expectations, and the development of evidence-based communication models. This systematic literature review underscores the importance of an interdisciplinary approach that integrates ethical, psychosocial, and clinical perspectives to bridge the gap between patient expectations and realistic outcomes while promoting sustainable and patient-centered practices in aesthetic medicine.

#Keywords

Aesthetic Medicine, Patient Expectations, Realistic Outcomes, Social Media Influence, Instagram and TikTok, Unrealistic Beauty Standards, Psychosocial Dimensions, Ethical Challenges, Generational Differences, Patient Satisfaction, Evidence-Based Communication, Mental Health, Self-Esteem, Long-Term Effects, Digital Media and Decision-Making, Cultural Differences, Patient-Centered Practices, Sustainable Aesthetic Medicine, Communication Strategies.

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Erwartungshaltungen von Patient:innen und deren Abgleich mit der Realität in der ästhetischen Medizin – Eine systematische Literaturübersicht

Diese systematische Literaturübersicht untersucht die komplexe Beziehung zwischen den Erwartungen von Patienten und realistischen Ergebnissen in der ästhetischen Medizin. Getrieben durch die zunehmende Verbreitung von Social-Media-Trends und sich wandelnde Schönheitsideale hat die Nachfrage nach ästhetischen Behandlungen in den letzten Jahren erheblich zugenommen. Die analysierten Studien beleuchten psychosoziale und ethische Dimensionen, wobei zentrale Themen wie der Einfluss von Social-Media-Plattformen wie TikTok, Instagram oder Facebook hervorgehoben werden, die unrealistische Schönheitsstandards fördern und überhöhte sowie oft unerreichbare Erwartungen bei den Patienten schüren. Ärzte fühlen sich häufig unter Druck gesetzt, Patientenwünsche zu erfüllen, die mit ihren klinischen Sicherheitsstandards oder ihrem eigenen professionellen Urteil in Konflikt stehen, was zu ethischen Herausforderungen führt. Dieser Artikel zeigt auf, dass transparente Kommunikation,

evidenzbasierte Entscheidungen und das Vertrauen in die Fachkompetenz der Ärzte entscheidende Faktoren für die Zufriedenheit der Patienten sind. Generationsunterschiede zeigen, dass Social Media jüngere Patienten stärker beeinflusst, die nach kosmetischer Perfektion streben, während ältere Patienten natürliche Ergebnisse und Sicherheit priorisieren. Ein signifikanter Forschungsbedarf besteht in der Untersuchung der langfristigen psychosozialen Auswirkungen ästhetischer Eingriffe auf die psychische Gesundheit, das Selbstwertgefühl und das soziale Wohlbefinden der Patienten. Die Notwendigkeit personalisierter Kommunikationsstrategien wird hervorgehoben, um diesen unrealistischen Erwartungen wirksam zu begegnen. Zukünftige Forschung könnte den Einfluss von Social Media auf die Entscheidungsfindung der Patienten, kulturelle Unterschiede als Treiber von Erwartungen sowie die Entwicklung evidenzbasierter Kommunikationsmodelle analysieren. Diese systematische Literaturübersicht unterstreicht die Bedeutung eines interdisziplinären Ansatzes, der ethische, psychosoziale und klinische Perspektiven integriert, um die Kluft zwischen Patientenerwartungen und realistischen Ergebnissen zu überbrücken und gleichzeitig nachhaltige sowie patientenzentrierte Praktiken in der ästhetischen Medizin zu fördern.

美容医学中患者期望与现实的系统性文献综述

本系统文献综述探讨了患者期望与审美医学中现实结果之间的复杂关系。受社交媒体趋势和不断变化的审美标准影响，近年来对审美治疗的需求显著增加。分析的研究聚焦于心理社会和伦理层面，强调了如TikTok、Instagram和FaceBook等社交媒体平台的影响，这些平台推广不切实际的美学标准，导致患者产生夸大且难以实现的期望。临床医生常因患者要求与其临床安全标准或专业判断相冲突而感到压力，从而面临伦理挑战。研究表明，透明的沟通、基于证据的决策以及患者对医生的信任往往是患者满意的关键驱动因素。代际差异显示，年轻患者受到社交媒体的显著影响，更倾向于追求美容上的完美，而年长患者则更注重自然效果和安全性。在审美治疗对患者心理健康、自尊和社会福祉的长期心理社会影响方面，研究仍存在显著空白。个性化沟通策略被认为是有效应对这些不现实期望的关键。未来研究可探讨社交媒体对患者决策的影响、文化差异对期望的驱动作用以及基于证据的沟通模型的开发。本系统文献综述强调了整合伦理、心理社会和临床视角的跨学科方法的重要性，以弥合患者期望与现实结果之间的差距，同时促进可持续且以患者为中心的审美医学实践。

Introduction

This systematic literature review is about patient expectations and reality in aesthetic medicine. One motivation to conduct this study is based on a new Australian law prohibiting children under 16 from using social media (Ritchie, 2024). This law aims to protect young people from the harmful effects of social media platforms such as Instagram, Facebook, Snapchat, and TikTok (Ritchie, 2024). Critics question the feasibility of age verification and warn of po-

tential data protection issues (Ritchie, 2024). The debate highlights that social media platforms play a significant role in the lives of young people despite mental health and self-perception issues (Ortutay, 2024). There is a need to better understand social media's influence on patients' perceptions of aesthetic medicine and to analyze the following questions: How do social media platforms shape beauty ideals and decision-making processes? What ethical questions arise

in this context? At the center of this study lies this area of focus, examining the intersection between social media use and patient expectations in aesthetic medicine.

Another motivation is that aesthetic medicine has experienced immense growth over the past decades, with an annual growth rate (CAGR) of 8.3% projected until 2030, driven by the increasing demand for invasive and non-invasive treatments (Grand View Research, 2024). This growth is closely linked to the profound influence of social media and digitalization, which play a crucial role in shaping contemporary beauty ideals and significantly impact the expectations of patients and individuals interested in aesthetic procedures (Atiyeh et al., 2024; Laughter et al., 2023; Hermans et al., 2022; Walker et al., 2021).

Key drivers of the spread of unrealistic beauty standards are Instagram and TikTok. These platforms fuel patient desires that are not always attainable and often do not align with the risks associated with aesthetic treatments (Chen et al., 2019; Mehta & Van der Aa, 2019). They frequently present curated and filtered images that reinforce unattainable ideals, leading patients to seek treatments that emulate these edited appearances without being aware of the associated limitations or consequences. Studies also show that misleading advertising exacerbates this phenomenon by portraying aesthetic procedures as simple, risk-free enhancements rather than complex medical interventions that require careful consideration (Collier, 2019; Redaelli, 2020).

The discrepancy between patient expectations and realistic outcomes represents one of the most significant challenges in aesthetic medicine. Patients often have inflated demands that surpass what is realistically achievable, frequently due to a lack of education regarding treatments' risks, benefits, and realistic results (Collier, 2019; ASMS, 2023). This issue is further amplified by the pressure on

practitioners to fulfill patient requests, even when they conflict with clinical safety standards or the provider's professional judgment (European Consensus Meeting, 2024). At the core of this issue are ethical considerations, as medical professionals bear the responsibility of guiding patients with evidence-based recommendations and mitigating unrealistic expectations through transparent communication (Mehta & Van der Aa, 2019; Wang et al., 2020).

This topic is significant because it improves patient satisfaction while ensuring the practice of sustainable and safe methods in aesthetic medicine. A deeper understanding of the factors influencing patient expectations can enable practitioners to develop effective communication strategies, helping to mitigate unrealistic demands and set realistic goals (Karadavut, 2017; ASMS, 2023).

This systematic literature review aims to critically explore the status of research about patient expectations and reality in aesthetic medicine and to call for further research based on the identified gaps in the literature using the Prisma framework. This study focuses on the gap between patients' wishes influenced by social media and the real achievable results of aesthetic medicine. It includes studies dealing with aesthetic medicine's psychosocial and ethical dimensions.

Materials and Methods

This systematic literature review analyzes research on the discrepancies between patient expectations and realistic outcomes in aesthetic medicine. The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 guidelines were followed to ensure methodological rigor and transparency in identifying, selecting, and synthesizing relevant studies. PRISMA provides a standardized approach to reporting systematic reviews, ensuring the search and selection processes are reproducible and transparent.

Inclusion and Exclusion Criteria

Specific inclusion and exclusion criteria were applied to ensure the relevance of the included studies. Studies were included if published in peer-reviewed journals, addressed psychosocial and ethical aspects of patient expectations in aesthetic medicine, examined the influence of social media and advertising on patient desires, and were published between 2018 and 2024. Studies were excluded if they focused exclusively on technological advancements without considering patient perspectives, lacked full-text access or sufficient methodological detail, or were not written in either German or English.

Information Sources

A comprehensive search was conducted in multiple databases, including PubMed and Google Scholar, to identify relevant literature. Additionally, reference lists from key studies were manually searched to capture further relevant articles.

Search Strategy

The literature search was conducted across multiple databases, including PubMed and Google Scholar. It was supplemented by a manual review of reference lists from key studies to identify additional relevant articles. Combined

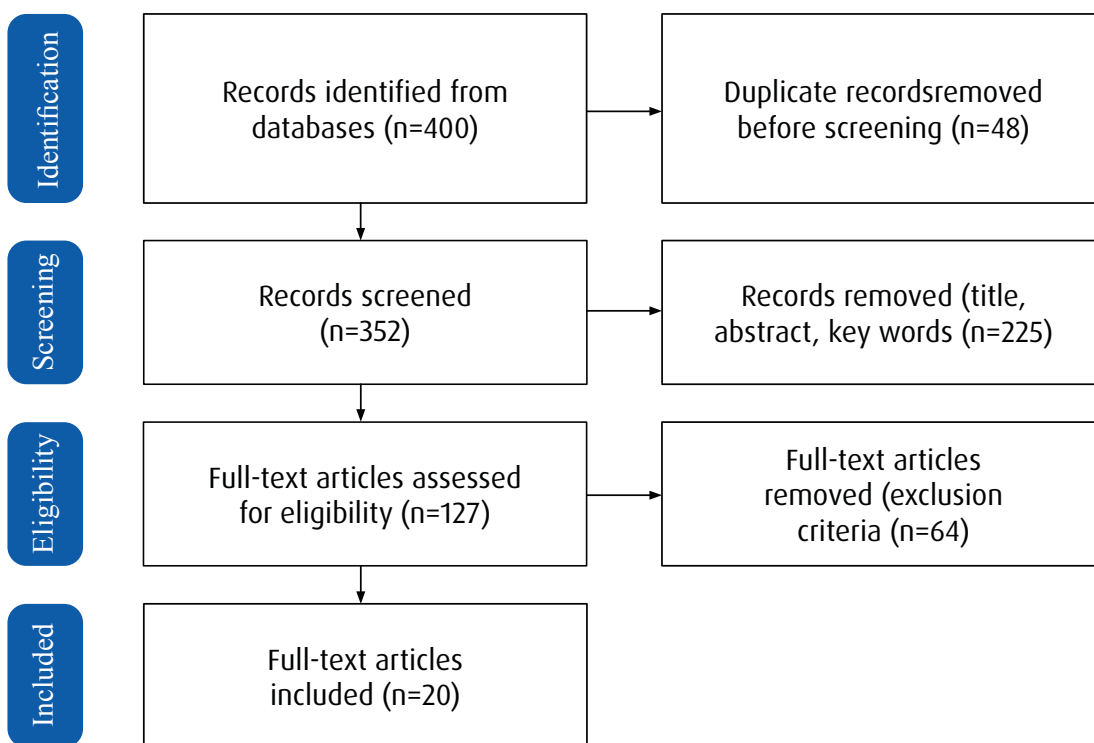


Fig. 1: Flowchart for PRISMA systematic literature reviews

search terms and Boolean operators were used to comprehensively cover the topic, including “Patient expectations in aesthetic medicine,” “Impact of social media on cosmetic treatments,” “Ethics in aesthetic medicine,” “Patient perception in aesthetic medicine,” and “Psychological impact of social media.” The search strategy was tailored to each database to optimize the quality of the results.

Study Selection Process

The study selection process followed the PRISMA flow diagram. In the initial phase, 400 articles were identified. After removing duplicates (n = 48) and irrelevant articles (n = 225), 127 articles remained for abstract and title review. Of these, 64 articles underwent full-text review based on the inclusion and exclusion criteria, and 24 studies were fi-

nally included in the analysis. These studies explore the psychosocial, ethical, and communicative aspects of aesthetic medicine and highlight the critical role of social media in shaping beauty ideals and patient expectations.

Risk of Bias Assessment

A structured risk of bias assessment was conducted using the Critical Appraisal Skills Programme (CASP) and the CRAAP test to analyze the articles' eli-

gibility. This approach ensured the methodological quality of the selected studies.

Data Extraction and Synthesis

A data table was created to extract and organize study information, including authorship, publication year, research methods, population characteristics, and key findings. The synthesis focused on identifying themes related to psychosocial and ethical dimensions, communi-

Title	Author(s)	Methodologies Used	No of Participants	Number of Articles and Studies	Type of Respondents
Association Between the Use of Social Media and Photograph Editing Applications, Self-esteem, and Cosmetic Surgery Acceptance	Jonlin Chen, BS; Masaru Ishii, MD, PhD; Kristin L. Bater, BA; Halley Darrach, BS; David Liao, BA; Pauline P. Huynh, BA; Isabel P. Reh; Jason C. Nellis, MD; Anisha R. Kumar, MD; Lisa E. Ishii, MD, MHS	Quantitative (Survey)	252		Patients
Characteristics of Patients Seeking and Proceeding with Non-Surgical Facial Aesthetic Procedures	Sylvia P B Ramirez, Gunther Scherz & Helen Smith	Qualitative Research, Interviews	624	1301	Patients
Time to Think About the Role of Ethics in Aesthetics	Collier, Helena	Ethical Frameworks			Patients and Practitioners
Consumer decision-making in cosmetic surgery: An interdisciplinary review identifying key challenges and implications for marketing theory	Fabienne Krywuczky Mirella Kleijnen	Systematic Review		1133	Patients

cation strategies, and challenges in addressing patient expectations in aesthetic medicine.

Methodological Rigor

This review was structured according to PRISMA guidelines to ensure transparency and reproducibility. It emphasizes integrating diverse perspectives to develop a comprehensive understanding of the topic while maintaining methodological robustness.

This structured approach provides a well-founded synthesis of the current state of knowledge, identifies research gaps, and offers insights to address the challenges of aligning patient desires with realistic goals in aesthetic medicine.

Table 1: Articles used in this systematic literature review with title, authors, year of publication, country, sample size, and theory

Purpose	Year	Origin of Participants	Call for Research
Social media platforms and photograph (photo) editing applications are increasingly popular sources of inspiration for individuals interested in cosmetic surgery. However, the specific associations between social media and photo editing application use and perceptions of cosmetic surgery remain unknown.	2018	Asian, Spanish, American, Alaskan	The call for research emphasizes the need to explore the causal relationship between social media use, photo editing applications, and attitudes toward cosmetic surgery. Future studies should focus on psychological mechanisms, demographic and cultural differences, and the long-term effects of these influences while evaluating interventions like media literacy programs to address potential negative impacts.
This paper aims to identify the clinical and demographic characteristics of patients who proceed with non-surgical facial aesthetic procedures in Singapore.	2021	Singapore	The call for research highlights the need to explore how patient characteristics and motivational factors for non-surgical facial aesthetic (NSFA) treatments differ across ethnic groups, which are underrepresented in existing studies. It also emphasizes examining factors influencing treatment decisions globally, given the rising demand for NSFA procedures. Further studies should address these gaps to provide more culturally inclusive insights and help physicians improve consultation effectiveness by understanding diverse patient motivations and clinical characteristics.
Ethical issues that confront aesthetic healthcare professionals, and calls for more significant consideration of ethics in aesthetic nursing.	2019	United Kingdom	
This study explores factors shaping cosmetic surgery decisions, focusing on identity, social media, and stakeholder interactions. It must highlight gaps in understanding the consumer journey and its marketing implications.	2024	Netherlands	The research highlights four key marketing challenges in the consumer surgery journey, stemming from gaps in literature and insights from marketing streams. Future studies should address these gaps using the outlined framework and research questions to understand consumer decision-making better.

<i>Title</i>	<i>Author(s)</i>	<i>Methodologies Used</i>	<i>No of Participants</i>	<i>Number of Articles and Studies</i>	<i>Type of Respondents</i>
Social Media Influence on Body Image and Cosmetic Surgery Considerations: A Systematic Review	Andreea Mironica , Codruța Alina Popescu , Delaca George , Ana Maria Tegzeșiu , Claudia Diana Gherman	Systematic Review and Meta-Analyses	13731	25	Patients and Practitioners
Current Role of Social Media in aesthetic Plastic Surgery: Why Plastic Surgeons must take concern?	Tiara Amanna Amanditaa* , Hastika Saraswati b	Systematic Review and Meta-Analysis		13	Social Media Users
Encouraging Natural Enhancement in Aesthetic Medicine	Joshua van der Aa, Tristan Mehta	Ethical Framework			Patients and Practitioners
Ethical Challenges With Nonsurgical Medical Aesthetic Devices	Chelsea O. Hagopian , DNP	Systematic Review		42	Patients and Practitioners
Facial Aesthetic Priorities and Concerns: A Physician and Patient Perception Global Survey	Sabrina Fabi, MD; Macrene Alexiades, MD, PhD; Vandana Chatrath, MD; Ligia Colucci, MD; Noëlle Sherber, MD, FAAD; Izolda Heydenrych, MD; Jared Jagdeo, MD, MS; Steven Dayan, MD; Arthur Swift, MDCM, FACS; Jonquille Chantrey, MD; W. Grant Stevens, MD, FACS ; and Sara Sangha, PhD	Quantitative (Survey)	16934		Patients and Practitioners
Fantasies and Fallacies of 'Aesthetic' Instagrammers	Mrigya Sharma, Abhishek Dhakad, Sandeep Sharma,	Qualitative (Case Study)			Users

Purpose	Year	Origin of Participants	Call for Research
<p>This study examines how social media platforms influence body image dissatisfaction and acceptance of cosmetic surgery, highlighting the role of idealized images, cultural norms, and ethical concerns while calling for strategies to promote healthy body perceptions and informed choices.</p>	<p>2024</p>	<p>Italy, Saudi Arabia, China, South Korea, Asia, UK,</p>	<p>The gap in the literature lies in understanding how social media influences cosmetic surgery desires across different demographics and the psychological mechanisms driving these effects.</p>
<p>This study shows that in the era of Society 5.0, digital technology has significantly impacted doctor-patient communication in the medical field, especially in plastic aesthetic surgery. Only a few plastic surgeons comprehend this digital transformation. This study hopes to help them better understand and adapt to social media.</p>	<p>2023</p>	<p>Global</p>	<p>The gap in the literature is the limited use of social media by plastic surgeons compared to its significant influence, with a preference for practice websites over platforms like Instagram and YouTube.</p>
<p>In this article, Tristan Mehta and Joshua Van Der Aa explore the issue of natural enhancement in aesthetic medicine.</p>	<p>2019</p>	<p>Netherlands</p>	
<p>This article aims to increase awareness of the nonsurgical medical aesthetic device industry's ethical challenges, including deceptive or misleading language in advertising, limited evidence of efficacy, and lack of public.</p>	<p>2019</p>	<p>California</p>	
<p>Minimally invasive and noninvasive facial aesthetic treatments are increasingly popular, and a greater understanding of patient perspectives on facial aesthetic priorities is needed.</p>	<p>2024</p>	<p>United Kingdom, United States, Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Mexico, Russia, Saudi Arabia, South Korea, Spain, Taiwan, Turkey</p>	
<p>This article underscores the profound impact of Instagram on aesthetic surgery, shedding light on both its fantasies and fallacies.</p>	<p>2023</p>	<p>International</p>	

<i>Title</i>	<i>Author(s)</i>	<i>Methodologies Used</i>	<i>No of Participants</i>	<i>Number of Articles and Studies</i>	<i>Type of Respondents</i>	
Lip Augmentation with Soft Tissue Fillers: Social Perceptions and Expectations	Bishara S. Atiyeh, MD*, Paul T. Beaineh, MD*, Christopher R. A. Hakim, MD*, Kareem W. Makkawi, MD*, Natasha T. Habr, MD*, Jana H. Zeineddine, MD*, Saif E. Emsieh, MD*, Oussama B. Issa, MD*, Anika G. Gnaedinger, MD†, Amir E. Ibrahim, MD*	Quantitative (Survey)	200		participants	
Patient Perception and Preferences in Choosing a Healthcare Provider for Non-Surgical Facial Aesthetic Procedures	Aya Jabbar Hussein, Faraed Dawood Salman	Quantitative(cross-sectional)	552		participants	
Social Media Marketing: What Do Prospective Patients Want to See?	Marie-Luise Kliez, MD; Hans Wilhelm Kaiser, MD; Hans-Günther Machens, MD; and Matthias Michael Aitzetmüller, MD	Quantitative (Experiment)	10500		Users	
The Effect of Service Quality and Clinic Image on Satisfaction to Mediate Revisit Intention and Loyalty in the Beauty Clinic Industry	Andrew Lienata* & Margaretha Pink Berlianto	Quantitative method(Cross-sectional survey)	250		participants	

	<i>Purpose</i>	<i>Year</i>	<i>Origin of Participants</i>	<i>Call for Research</i>
	Though social media influence the perception of beauty, data provided by the survey confirm that golden standards of aesthetics remain constant and that the exaggerated requests of some patients may not be attributed solely to social media influence but probably to social media in combination with additional personal predisposing factors. Patients must be made aware of how others perceive them, which is essential for them to be satisfied with their appearance.	2023	Asia, Europe, North America, Middle East	
	The study revealed that young Iraqi females had some knowledge and were somewhat familiar with NSFA, but most had not undergone procedures. Plasma, filler, and botox were the standard procedures. Dermatologists and dentists were the most common providers; they responded that their educational background was very influential. Social media constituted the lowest percentage, possibly related to the participants' limited knowledge and awareness.	2024	Iraq	There is a need for further research in this area to identify The regions of limited knowledge, social media presence, and the identification of specific reasons may help us address them more effectively and find solutions in recent years.
	This study aimed to design a social experiment based on Instagram to give guidance for efficiency and self-promotion.	2019	International	
	This study examines the direct effect of service quality, which consists of tangibility, reliability, responsiveness, assurance, empathy, and clinic image, on patient satisfaction, assessed by the expectation of intention to revisit and patient loyalty.	2023	Indonesian	

<i>Title</i>	<i>Author(s)</i>	<i>Methodologies Used</i>	<i>No of Participants</i>	<i>Number of Articles and Studies</i>	<i>Type of Respondents</i>	
The ethics of aesthetics	Svein Aarseth					
The Ideals of Facial Beauty Among Chinese Aesthetic Practitioners: Results from a Large National Survey	Souphiyeh Samizadeh	Quantitative (Survey)	596		participants	
The Impact of Social Media-Driven Fame in Aesthetic Medicine: When Followers Overshadow Science	Giovanni Buzzaccarini, MD ; Rebecca Susanna Degliuomini, MD; and Marco Borin, MD					
The influence of social media on people's decisions to undergo aesthetic procedures	Khaled Seetan, Almu'atasim Khamees, Nora AlKhateeb, Alameed Alsabbah, Majid Masarat, Rand Ahmed Zyout, Rahmah Shareah, Ghaida'a Ananzeh, Mohammad Sami Azu'bi, Sara Muhanna	Quantitative (Cross-sectional, survey-based)	1620		participants	

	<i>Purpose</i>	<i>Year</i>	<i>Origin of Participants</i>	<i>Call for Research</i>
	This article addresses some critical aspects of the relationship between aesthetic medicine (AM) and ethics and proposes a possible deontological ethical line to pursue based on current practices. The role of AM has always been controversial. It needs more practical and moral boundaries, even within academic settings, since it aims to improve the appearance of individuals, not to cure a disease.	2024		
	This study investigated the ideals of facial beauty among Chinese aesthetic practitioners. A questionnaire with simple sketches of facial features was given to aesthetic practitioners in Chinese cosmetology hospitals and clinics to assess their beauty ideals and preferences for facial shapes, facial profiles, nose and lip shapes, jaw angles, and chin shapes.	2019	China	The gap in the literature includes the need for more investigation into the link between beauty ideals and clinical practice, limited statistical significance for older age groups, and the absence of longitudinal data to capture real-world clinical behavior.
	This article is about the attention to a growing trend that has the potential to affect the integrity of our practice and the well-being of patients: the recognition of doctors based on their social media presence rather than scientific knowledge and clinical expertise.	2023	UK	
	This study examines the factors influencing patients' decisions to undergo aesthetic procedures.	2023	Jordan	

<i>Title</i>	<i>Author(s)</i>	<i>Methodologies Used</i>	<i>No of Participants</i>	<i>Number of Articles and Studies</i>	<i>Type of Respondents</i>	
The Patient Journey in Facial Aesthetics	Wolfgang G. Philipp-Dormston, Koenraad De Boule, Yoav Gronovich, Nick Lowe, Karim Sayed, Dimitrios Sykianakis & Serhan Tuncer	Qualitative (consensus-based methodology)	9		practitioners	
The Psychological Impact of Aesthetic Procedures	Ioana A Halip, Laura Gheucă Solovăstru, Laura Stătescu, Ioana A Popescu, Adriana I Pătrașcu, Andra G Salahoru, Bogdan-Marian Tarcău, Alina Stincanu, Doinița Olinici Temelie, Dan Văță	Qualitative			Patients	
Two Multinational Observational Surveys Investigating Perceptions of Beauty	Alessio Redaelli MD1 Sana Siddiqui Syed MBA2 Xierong Liu PhD3 Michele Poliziani MA3 Hakan Erbil MD4 Inna Prygova MD5 Vasiliy Atamanov MD6	Qualitative (Observational Survey)	460		participants	
Understanding the Social Media Marketing Activities Influence on Revisit Intention in Beauty Clinics: The Case Study in Bangkok, Thailand	Chanantakanok Jatiyananda, Wasutida Nurittamont, Bordin Phayaphrom	literature review - Quantitative (Survey)	400		participants	

	<i>Purpose</i>	<i>Year</i>	<i>Origin of Participants</i>	<i>Call for Research</i>
	<p>Successful treatment of facial lines with botulinum toxin mainly depends on patient satisfaction; thus, a structured treatment journey using patient-reported outcomes (PROs) helps maximize botulinum toxin results. To develop a patient-centric approach for botulinum toxin injections in facial aesthetics, a group of clinicians met to provide opinions on an optimal treatment journey that uses PROs to quantify treatment benefits on patient quality of life.</p>	2024	Germany	
	<p>Young patients should understand the aesthetic results of surgical aesthetics. Procedures may lead to permanent change. A complete assessment of why the young patient wishes to have the procedure and what difference the patient thinks it will make to their life should be undertaken. Poor psychological outcomes are possible, and unrealistic expectations may warn the doctor against the procedure until the patient is emotionally mature and may need a psychological referral to maintain psychosocial health and improve the quality of life.</p>	2024	Romania	
	<p>This study aimed to survey users and non-users of aesthetic procedures in countries where this information is less readily available to understand attitudes and perceptions relating to beauty.</p>	2020	Colombia, Russia, Thailand, Turkey, United Arab Emirates, Lebanon, Malaysia	
	<p>This research investigates the influence of Social Media Marketing Activities on Brand Image, Brand Trust, Brand Loyalty, and Revisit Intention in Bangkok's beauty clinics.</p>	2022	Bangkok	

Title	Author(s)	Methodologies Used	No of Participants	Number of Articles and Studies	Type of Respondents
Plastic Surgery Social Media Influencer: Ethical Considerations and a Literature Review	Nisha Gupta, BA; Robert Dorfman, MD; Sean Saadat, MD; and Jason Roostaeian, MD	custom publication date range and a review of the literature		26	participants
The ethical foundations of patient-centered care in aesthetic medicine	Editta Buttura da Prato ¹ , Hugues Cartier ² , Andrea Margara ³ , Beatriz Molina ⁴ , Antonello Tateo ^{5,6} , Franco Grimolizzi ^{7*} and Antonio Gioacchino Spagnolo ⁸			40	practitioners

Key Themes and Scope

The articles in the systematic literature review table examine various perspectives and aspects of aesthetic medicine, particularly the role of social media, patient expectations, ethical challenges, and service quality. The findings underscore the complexity and multifaceted nature of this field, with several key themes emerging:

Social Media and Its Influence on Aesthetic Procedures

Social media platforms, particularly Instagram and TikTok, significantly shape beauty ideals and patient expectations. Studies show that these platforms often promote unrealistic beauty standards, influencing patient expectations and motivations. Chen et al. (2019) and Johansson & Li (2024) emphasize that these beauty standards strongly distort the public perception of aesthetic procedures, leading to heightened expectations. Laughter et al. (2023) and Hermans, Boerman, and Veldhuis (2022) further highlight the role of social media

in increasing body dissatisfaction and reinforcing unattainable ideals. Moreover, Maymone et al. (2019) and Atiyeh et al. (2024) demonstrate that social media drives aesthetic trends and influences patient behavior by highlighting the importance of "perfect beauty." These findings underline the critical need for ethical considerations and patient education in the face of such pervasive influences.

Psychosocial Dynamics

Patient satisfaction in aesthetic medicine relies on clear and transparent communication, realistic goal-setting, and trust in the practitioner and clinic. According to Collier (2019), unrealistic expectations often stem from insufficient education and misleading advertisements. ASMS (2023) highlights that patients frequently operate under idealized notions of aesthetic outcomes without fully understanding the realistic possibilities or potential risks. Studies like those by Mehta and Van der Aa (2019) underline that trust in the practitioner is a critical factor for satisfaction.

<i>Purpose</i>	<i>Year</i>	<i>Origin of Participants</i>	<i>Call for Research</i>
Social media use has become a relevant tool in plastic surgery. These platforms are utilized for many reasons, such as business promotion. Although beneficial, social media can cause ethical dilemmas if misused.	2019		
This article addresses some critical aspects of the relationship between aesthetic medicine (AM) and ethics and proposes. A possible deontological ethical line to pursue based on current practices. The role of AM has always been It is controversial and needs more practical and moral boundaries, even within academic settings, since it aims. It is to improve individuals' appearance, not cure a disease.	2024	US	

Laughter et al. (2023) and Hermans, Boerman, and Veldhuis (2022) further emphasize the psychological impact of body dissatisfaction and its influence on patient decision-making. Additionally, Atiyeh et al. (2024) and Wang et al. (2020) stress that open, evidence-based communication plays a pivotal role in managing patient expectations and ensuring long-term satisfaction.

Generational Differences

Karadavut (2017) and Mehta and Van der Aa (2019) reveal that patient priorities and expectations vary significantly across age groups. Social media influences younger patients, who value cosmetic perfection and follow current trends. In contrast, older patients prioritize safety, natural results, and avoiding invasive procedures. Johansson & Li (2024) and Hermans, Boerman, and Veldhuis (2022) stress the need for tailored communication strategies that address the specific needs of different age groups and help prevent unrealistic expectations.

Patient Attitudes and Decision-Making Processes

The articles by Ramirez et al. (2021) and Hussein and Salman (2024) highlight the importance of cultural and demographic differences in decision-making for non-invasive aesthetic treatments. The findings indicate that a deeper understanding of patient expectations and needs is essential to developing personalized treatment plans.

Ethical Challenges

Ethical dilemmas are recurring in the reviewed studies, particularly when patients request unrealistic or high-risk procedures. The European Consensus Meeting (2024) stresses that practitioners often face pressure to meet these demands, which may conflict with clinical safety standards or professional judgment. Collier (2019) underscores the necessity of a mindful approach to ethical principles, such as patient autonomy and informed consent, to bridge the gap between desire and reality. Atiyeh et al. (2024) and Mehta and Van der Aa

(2019) emphasize the importance of practitioners making evidence-based decisions and critically evaluating patient requests to ensure safe and sustainable outcomes. Laughter et al. (2023) further highlight the ethical responsibility to manage patient expectations through transparent communication and education.

Long-Term Effects and Psychosocial Dimensions

Another key focus is the psychosocial consequences of aesthetic procedures, especially for patients with unrealistic expectations. Studies by Johansson and Li (2024) and Chen et al. (2019) point out that unmet expectations can lead to dissatisfaction and psychological stress. Atiyeh et al. (2024) and Maymone et al. (2019) add that the long-term effects on self-esteem and mental health have been only minimally explored, indicating

a significant research gap. Further investigation is needed to understand the psychosocial dimensions of aesthetic interventions and their broader impact on patient well-being.

Service Quality and Patient Satisfaction

Studies such as those by Lienata and Berlianto (2023) address the influence of cultural ideals and social perceptions on expectations for aesthetic treatments. They focus on adopting a global perspective to tailor treatments to diverse patient groups' needs and expectations.

The articles in the systematic literature review have different characteristics such as geographic scope, background of participants, or research. The findings underscore the complexity and multifaceted nature of this field, with several key themes emerging.



Geographic Diversity

The studies cover a wide range of regions, including Asia (e.g., China, South Korea, Singapore), Europe (e.g., the United Kingdom, Netherlands, Italy), North America (e.g., the United States),

the Middle East (e.g., Iraq), and other international contexts such as Malaysia, Russia, Colombia, and Australia. This geographic diversity enables the detailed analysis and consideration of cultural differences and global trends in aesthetic medicine.

Participant Backgrounds

The participants include patients and aesthetic medicine practitioners, allowing for a holistic view of the topics. They represent population groups of various ages, genders, and ethnicities, including Asian, Hispanic, American, and European participants. This broad representation ensures the findings are widely relevant, reflecting global trends and regional particularities.

International Representativeness

The large number of participants and the broad geographic coverage contribute to the literature review's findings being considered representative of global aesthetic medicine. The international perspective highlights cultural and regional differences while enabling the identification of shared challenges, such as ethical considerations, the influence of social media, and patient expectations.

In summary, the studies emphasize the importance of a global and interdisciplinary approach to developing well-founded insights and evidence-based recommendations for aesthetic medicine.

Theoretical Frameworks of the Studies

The diverse theoretical frameworks applied in the studies allow for an in-depth analysis of the complex topics within aesthetic medicine from different perspectives. These approaches range from psychological and sociological theories to ethical and marketing-related models.

Sociocultural Frameworks

Some studies and articles, such as those by Ramirez et al. (2021), draw on sociocultural theories to analyze cultural and demographic differences in decision-making for aesthetic treatments. This perspective highlights how cultural norms and societal expectations shape

perceptions of beauty and the demand for aesthetic procedures.

Ethical Models

Several studies emphasize ethical aspects, as seen in the works of Collier (2019) and Hagopian (2019). Both apply ethical frameworks to address transparency, patient education, and the balance between beauty and health. These studies underscore the necessity of clear ethical guidelines to strengthen patient trust and ensure transparency and integrity within the industry.

Marketing Theories

Another focus lies on marketing-related models, particularly in studies examining patient decision-making and the influence of social media and branding (Walker et al., 2021; Atiyeh et al., 2024). Concepts such as the theory of planned behavior and digital marketing strategies are employed to explain the dynamics between patient expectations, brand perception, and revisit intentions (Hermans, Boerman, & Veldhuis, 2022; Jatiyananda et al., 2021).

Interdisciplinary Approaches

Some studies integrate multiple theoretical frameworks, capturing the multidimensional nature of aesthetic medicine (Atiyeh et al., 2024; Hermans, Boerman, & Veldhuis, 2022). Psychological and ethical models are often combined with marketing approaches for a more comprehensive analysis (Laughter et al., 2023; Walker et al., 2021).

Methods Used

The studies analyzed in this systematic literature review employed a diverse range of research methodologies. This allows for a more comprehensive understanding by capturing different dimensions of a complex subject. For instance, qualitative methods provide deep insights into patient experiences and motivations, while quantitative approaches

offer measurable and generalizable data. Systematic reviews and meta-analyses synthesize these findings, identifying overarching trends and research gaps.

Qualitative Research

Studies utilized different research and data collection methods such as case studies, Delphi techniques, semi-structured interviews, and focus groups to explore patient perceptions, motivations, and concerns related to aesthetic procedures (Ramirez et al., 2021; Halip et al., 2024; Sharma et al., 2023; Buzzaccarini et al., 2023).

Quantitative Research

Statistical approaches were employed to evaluate service quality and revisit intention in aesthetic clinics. Cross-sectional and observational studies analyzed trends in patient satisfaction, clinical preferences, and the influence of social media on decision-making (Chen et al., 2018; Hussein & Salman, 2024; Redaeli et al., 2020; Lienata & Berlianto, 2023; Klietz et al., 2019; Samizadeh, 2019).

Systematic Reviews and Meta-Analyses

These methods synthesized existing studies to examine the role of social media, ethical challenges, and emerging trends in aesthetic medicine, identifying critical research gaps (Mironica et al., 2024; Amanditaa & Saraswati, 2023; Mehta & Van der Aa, 2019).

Research Gaps and Calls for Further Research

In this section, research gaps and calls for further research are identified for each key theme (cp. table 2).

1. **Long-Term Psychosocial Effects:** Halip et al. (2024) and Atiyeh et al. (2024) highlight the lack of longitudinal studies on the psychosocial impacts of aesthetic procedures.

Current research predominantly focuses on short-term outcomes, leaving the long-term effects on self-esteem, social integration, and overall well-being underexplored. Future research should conduct systematic longitudinal studies to evaluate these dimensions, providing a deeper understanding of the enduring implications of aesthetic interventions.

2. **Cultural Differences:** Cultural and demographic differences significantly influence patients' decisions regarding aesthetic treatments. Ramirez et al. (2021) and Hussein & Salman (2024) underscore the scarcity of research examining these variations. Hermans, Boerman, and Veldhuis (2022) call for an analysis of patient expectations and needs across diverse regions and cultural backgrounds. Addressing this gap requires targeted research to develop culturally sensitive and region-specific treatment approaches, enhancing patient satisfaction and inclusivity in practice.
3. **Influence of Social Media:** The pervasive influence of social media on body image and aesthetic aspirations remains insufficiently understood. Mironica et al. (2024) and Chen et al. (2019) identify a need to unravel the psychological mechanisms behind social media's impact on body dissatisfaction and the desire for aesthetic procedures. Future studies should investigate idealized beauty standards' effects on diverse populations and examine the associated long-term consequences to inform interventions and public awareness campaigns.
4. **Ethical Considerations:** Ethical challenges in aesthetic medicine, including transparency, patient education, and unrealistic expectations, are highlighted by Collier (2019) and Hagopian (2019). Developing comprehensive, internationally applicable ethical frameworks is essential. Future research should focus on creating guidelines that prioritize ethical practice, improve patient

- outcomes, and establish industry-wide standards.
5. Service Quality and Patient Satisfaction: Lienata & Berlianto (2023) and Maymone et al. (2019) reveal limited studies on how cultural and social factors influence patients'

perceptions of service quality. Comparative research is needed to explore these influences systematically, shedding light on how regional and cultural contexts shape patient experiences and satisfaction, thereby improving service delivery.

Category	Research Gap	Call for Further Research	Source(s)
Long-Term Psychosocial Effects	Halip et al. (2024) and Atiyeh et al. (2024) emphasize the lack of systematic longitudinal studies on the impacts of aesthetic procedures on psychological health and social well-being.	Conduct systematic longitudinal studies to explore how these procedures influence self-esteem, social integration, and overall well-being over time.	Halip et al. (2024); Atiyeh et al. (2024)
Cultural Differences	Ramirez et al. (2021) and Hussein & Salman (2024) identify limited research on cultural and demographic differences in decision-making for aesthetic treatments. Hermans, Boerman, and Veldhuis (2022) suggest analyzing patients' expectations and needs from different cultures and regions.	Analyze patients' specific expectations and needs from different regions and cultures to develop culturally sensitive and targeted treatment approaches.	Ramirez et al. (2021); Hussein & Salman (2024); Hermans, Boerman, & Veldhuis (2022)
Influence of Social Media	Mironica et al. (2024) and Chen et al. (2019) highlight the insufficient understanding of the psychological mechanisms behind social media's influence on body dissatisfaction and aesthetic procedure desires.	Investigate the impact of idealized beauty standards on various target groups and their associated long-term consequences.	Mironica et al. (2024); Chen et al. (2019)
Ethical Considerations	Collier (2019) and Hagopian (2019) stress the absence of unified ethical guidelines in aesthetic medicine, focusing on transparency, patient education, and managing unrealistic expectations.	Develop comprehensive ethical frameworks that are internationally applicable and focus on transparency, patient education, and managing unrealistic expectations.	Collier (2019); Hagopian (2019)
Service Quality and Patient Satisfaction	Lienata & Berlianto (2023) and Maymone et al. (2019) indicate the lack of comparative studies on how cultural and social factors influence patients' expectations of service quality.	Systematically explore regional and cultural differences to understand how these contexts shape patient experiences and satisfaction.	Lienata & Berlianto (2023); Maymone et al. (2019)

Table 2: Topics and categories, research gaps, and calls for further research

Conclusion

This systematic literature review examined the complex relationship between patient expectations and realistic outcomes in aesthetic medicine, focusing on the influence of social media, ethical considerations, and psychosocial aspects. The aim was to understand better the mechanisms leading to discrepancies between desires and reality and provide practice-relevant insights for aesthetic medicine.

This study was motivated by the growing impact of social media on perceptions of aesthetic treatments. Australia recently banned social media use for children under 16, aiming to mitigate its negative effects on mental health and self-perception, though concerns about feasibility and data protection persist (Ritchie, 2024; Ortutay, 2024). Additionally, aesthetic medicine has seen rapid expansion, with a projected CAGR of 8.3% until 2030, driven by rising demand for treatments. This growth is strongly influenced by social media and digitalization, which shape beauty ideals and significantly affect patient expectations (Grand View Research, 2024; Atiyeh et al., 2024; Laughter et al., 2023; Hermans et al., 2022; Walker et al., 2021). Therefore, this study addresses the need to better understand how social media influences beauty ideals, patient decision-making, and associated ethical challenges.

Instagram and TikTok play a central role in shaping unrealistic beauty ideals through curated and filtered content. Research shows that these platforms significantly influence patient desires, often fostering unattainable expectations that overshadow the risks and limitations of aesthetic treatments (Chen et al., 2019; Mehta & Van der Aa, 2019). These platforms frequently feature curated and filtered images that reinforce unattainable ideals, prompting patients to seek procedures that mimic these edited appearances – often without understanding the associated limitations or consequences.

The systematic literature review identifies several critical research gaps in aes-

thetic medicine, highlighting the need for systematic longitudinal studies to explore how aesthetic procedures influence self-esteem, social integration, and overall well-being over time. It calls for analyzing patients' specific expectations and needs from different regions and cultures to develop culturally sensitive and targeted treatment approaches. Additionally, it emphasizes the importance of investigating the impact of idealized beauty standards on various target groups and their associated long-term consequences. There is also a pressing need to develop comprehensive ethical frameworks that are internationally applicable and focus on transparency, patient education, and managing unrealistic expectations. Lastly, systematic exploration of regional and cultural differences is required to understand how these contexts shape patient experiences and satisfaction, enhancing service quality and patient outcomes.

While this systematic literature review provides valuable insights, it is not without limitations. One major constraint is the reliance on existing studies, which can limit the scope of analysis to the methodologies, sample sizes, and contexts chosen by previous researchers. This may introduce biases or gaps, particularly if certain populations or regions are underrepresented in the available literature. Additionally, the timing of the reviewed studies poses a challenge, as rapid advancements in aesthetic medicine and evolving societal attitudes may render some findings less relevant or outdated. Finally, the inclusion and exclusion criteria used to select studies could inadvertently omit relevant research, impacting the comprehensiveness of the review. These limitations highlight the need for ongoing and updated research to address emerging trends and contexts in aesthetic medicine.

This study holds significant value in advancing the field of aesthetic medicine by systematically identifying key research gaps and proposing targeted calls for further research. By synthesizing insights across diverse themes—ranging from psychosocial impacts and cultural consi-

derations to the influence of social media and ethical frameworks—it provides a comprehensive roadmap for future studies. Addressing these gaps is crucial not only for improving patient care and satisfaction but also for fostering evidence-based practices that are culturally inclusive and ethically sound. Furthermore, the findings have the potential to inform policymakers, practitioners, and researchers, contributing to the development of standardized guidelines and tailored approaches that enhance the overall quality and outcomes of aesthetic treatments. This study serves as a critical step toward a more holistic understanding of the complexities within aesthetic medicine.

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Conflict of (Competing) Interest

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Data Availability and Supplementary Material

All data generated and analyzed during this study and supplementary material are available upon reasonable request.

Prior Publication

The authors confirm that this research has not been published previously and is not under consideration for publication elsewhere.

Ethics Statement

This study complies with the ethical guidelines of the European Code of Conduct for Research Integrity and adheres to the GDPR requirements for data protection. Ethical approval was obtained from the Institutional Review Board of EIM, and informed consent was secured from all participants.

Responsible AI Ethics Statement

This study used artificial intelligence (AI) tools to support tasks such as identifying relevant literature, analyzing datasets, and editing textual content. These tools were employed solely to enhance efficiency, and their outputs were critically reviewed to ensure alignment with research objectives. The use of AI adheres to ethical principles outlined in the EU AI Act, the OECD AI Principles, and the UNESCO Recommendation on the Ethics of Artificial Intelligence, emphasizing transparency, fairness, and accountability. The authors made all final decisions and retain full responsibility for this research's integrity, rigor, and conclusions.

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