

Non-surgical aesthetic procedures and eating behavior: A review of motivational and dietary changes associated with body image

Procedimientos estéticos no quirúrgicos y comportamiento alimentario: Una revisión de los cambios motivacionales y dietéticos asociados a la imagen corporal

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Abstract

Non-surgical aesthetic procedures have expanded steadily and raise important questions about their links to eating behavior. This narrative review synthesizes evidence from PubMed, Scopus, and Web of Science (2014–2025) to examine how post-procedure body-image changes relate to dietary motivation, eating styles, and risk of eating psychopathology. Direct empirical data on dietary modifications after treatment are limited, partly because body-contouring trials neutralize diet to isolate device effects and facial studies prioritize patient-reported outcomes such as quality of life and body image. Nevertheless, converging findings indicate that body dissatisfaction and intensive social-media exposure are associated with greater eating dysregulation, whereas body-image flexibility and intuitive eating relate to better well-being and fewer risky behaviors. We propose two plausible trajectories after treatment: sustainable nutritional adjustments among individuals who consolidate a more positive body image, and restrictive or compensatory patterns among those with persistent body dissatisfaction or dysmorphic traits. Clinically, brief validated screening for eating disorders and body dysmorphic disorder, together with peri-procedural nutritional assessment and counseling, is advisable. Research gaps and an agenda are outlined, prioritizing pre-post cohorts with follow-up, standardized dietary outcomes, and measurement of sociocultural context to estimate the magnitude and direction of change more precisely.

Keywords: eating behavior, non-surgical aesthetic procedures, body image, body dysmorphic disorder, intuitive eating

Resumen

Los procedimientos estéticos no quirúrgicos se han expandido de forma sostenida y plantean preguntas relevantes sobre sus vínculos con la conducta alimentaria. Esta revisión narrativa sintetiza evidencia de PubMed, Scopus y Web of Science (2014–2025) para examinar cómo los cambios en la imagen corporal posteriores al procedimiento se relacionan con la motivación dietética, los estilos de alimentación y el riesgo de psicopatología alimentaria. Los datos empíricos directos sobre modificaciones dietéticas tras el tratamiento son limitados, en parte porque los ensayos de contorno corporal suelen neutralizar la dieta para aislar los efectos del dispositivo y los estudios faciales priorizan desenlaces autorreportados como calidad de vida e imagen corporal. No obstante, hallazgos convergentes indican que la insatisfacción corporal y la exposición intensa a redes sociales se asocian con mayor desregulación alimentaria, mientras que la flexibilidad de la imagen corporal y la alimentación intuitiva se relacionan con mayor bienestar y menos conductas de riesgo. Proponemos dos trayectorias plausibles tras el tratamiento: ajustes nutricionales sostenibles en personas que consolidan una imagen corporal más positiva, y patrones restrictivos o compensatorios en quienes presentan insatisfacción corporal persistente



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o rasgos dismórficos. En la práctica clínica, se recomienda un tamizaje breve y validado de trastornos de la conducta alimentaria y trastorno dismórfico corporal, junto con valoración y consejería nutricional peri-procedimiento. Se describen brechas y una agenda de investigación, priorizando cohortes pre-pos con seguimiento, desenlaces dietéticos estandarizados y medición del contexto sociocultural para estimar con mayor precisión la magnitud y dirección del cambio..

Palabras clave: conducta alimentaria, procedimientos estéticos no quirúrgicos, imagen corporal, trastorno dismórfico corporal, alimentación intuitiva

Introduction

Over the last two decades, non-surgical aesthetic procedures, such as dermal fillers, botulinum toxin injections, biostimulators, mesotherapy, and various forms of device-based body contouring, have experienced sustained global growth (International Society of Aesthetic Plastic Surgery, 2023; Sarwer, 2019). This phenomenon responds to interrelated factors, such as the development of minimally invasive technologies that offer visible results with increasingly short recovery times and a lower perceived risk than surgery; moreover, recent reports show steady increases in the demand for and volume of minimally invasive procedures at the international level (American Society of Plastic Surgeons, 2023). Constant exposure to beauty ideals in the media and on social networks intensifies social comparison and is associated with greater body dissatisfaction and risky eating behaviors; in addition, the use of “selfies” and filters has been linked to distortion of self-image and to the motivation to undergo cosmetic procedures (Jiotsa et al., 2021; Rajanala et al., 2018).

In this context, non-surgical aesthetics has direct implications for nutrition, psychology, and public health: body dissatisfaction is related to maladaptive eating styles and, among patients seeking aesthetic treatments, clinically relevant prevalences of eating disorders have been described, which justifies screening strategies and interdisciplinary support (Eck et al., 2022; Zimmer et al., 2022).

The literature describes a psychological and behavioral bridge between changes in appearance and eating habits. Body dissatisfaction is associated with maladaptive eating styles, such as rigid restriction or emotional eating, and with poorer perceived health, whereas intuitive eating shows inverse relations with eating psychopathology and direct relations with indicators of body image and well-being (Eck et al., 2022; Linardon et al., 2021). These findings make it possible to hypothesize that, after non-surgical aesthetic procedures, a subset of patients attempts to maintain results through structured dietary changes, whereas another subgroup with greater body distress may shift toward risky eating patterns (Hazzard et al., 2021).

When compared with better-studied scenarios, such as bariatric surgery, intense behavioral changes and even the emergence or recurrence of eating-disorder symptoms have been documented in the postoperative period, underscoring the relevance of psychological and dietary components in the clinical trajectory (Taba et al., 2021). In the non-surgical domain, elevated prevalences of signs of body dysmorphic disorder have been described among individuals seeking cosmetic treatments, a profile that can amplify unrealistic expectations and favor problematic dietary strategies; moreover, among patients requesting aesthetic procedures, clinically relevant rates of eating disorders have been reported, which justifies rigorous evaluation and interdisciplinary follow-up (Pikoos et al., 2021; Zimmer et al., 2022).

Based on this panorama, the present review synthesizes

the evidence on motivational and dietary changes associated with non-surgical aesthetic procedures in adult populations, articulates psychological mechanisms such as body image, body dysmorphic disorder, and internalization of the aesthetic ideal with their manifestations in eating behavior, and discusses clinical implications for nutrition, psychology, and aesthetic practice. It also highlights possible protective and supportive factors, such as intuitive-eating approaches, and outlines lines of research oriented toward longitudinal studies and the integration of screening for eating disorders and body dysmorphic disorder in aesthetic care (Hazzard et al., 2021; Sarwer, 2019; Zimmer et al., 2022).

Methods

This review adopts a narrative approach and was guided by the SANRA (Scale for the Assessment of Narrative Review Articles) recommendations to strengthen the quality, clarity, and methodological transparency of narrative synthesis (Baethge et al., 2019). In addition, selected PRISMA 2020 reporting items were incorporated solely to enhance transparency of the search and study-selection process (e.g., databases searched, time window, eligibility criteria, screening procedure, and documentation of reasons for exclusion) (Page et al., 2021). Accordingly, the manuscript does not claim to be a full systematic review or meta-analysis; evidence was synthesized narratively and thematically. PubMed/MEDLINE, Scopus, and Web of Science were consulted, with a time window from 2014 to 2025 and no geographic restrictions, using combinations of free-text and MeSH terms related to non-surgical aesthetic procedures, body image, eating behavior, and motivation. The choice of a narrative design is grounded in the conceptual and methodological heterogeneity of the field and in the need to integrate findings from observational studies and clinical work in non-surgical aesthetics, adhering to quality criteria for narrative reviews and modern reporting guidance (Baethge et al., 2019; Page et al., 2021).

Eligibility criteria and selection process

We included peer-reviewed empirical studies conducted in adults (≥ 18 years) that examined the relationship between non-surgical aesthetic procedures and body image and/or motivational variables alongside eating-behavior outcomes, or that reported disordered-eating indicators among individuals seeking aesthetic treatments. For the purpose of this review, non-surgical aesthetic procedures were operationally defined as cosmetic interventions that do not involve open surgery or tissue excision, including injectable procedures (e.g., botulinum toxin, dermal fillers, and other injectable biostimulatory agents), minimally invasive aesthetic techniques where applicable, and dermatologic or device-assisted procedures aimed at aesthetic improvement (e.g., chemical peels, microneedling, laser/light-based therapies, radiofrequency, cryolipolysis, and other non-surgical body-contouring technologies). Studies were considered eligible when they reported at least one eating-

related variable such as dietary restraint/restriction, binge eating, emotional eating, compensatory behaviors, disordered-eating symptoms, or eating-disorder diagnosis/prevalence, and these outcomes were deemed relevant when assessed via validated instruments, clinical diagnosis/screening, or explicit operational definitions provided by the original authors.

Eligible designs included observational and interventional studies (e.g., cross-sectional, case-control, cohort/longitudinal studies, and clinical/interventional studies when available). We excluded non-peer-reviewed materials (e.g., conference abstracts, dissertations, editorials), case reports/case series that did not provide pertinent eating-behavior information, and studies focused exclusively on bariatric or other surgical procedures when they did not offer non-surgical-specific analyses. Searches covered the period 2014–2025 to reflect contemporary practice in non-surgical aesthetics and the modern sociocultural context influencing body image and eating behavior. Screening and full-text assessment were conducted in English and Spanish when available to the review team; studies in other languages were excluded if reliable full-text assessment was not feasible. Two reviewers independently screened titles/abstracts and full texts, resolving discrepancies by consensus, and documented reasons for exclusion.

The study-selection process is summarized in a flow diagram adapted from the PRISMA 2020 structure for transparency (Figure 1), including records identified, duplicates removed, records screened, full texts assessed, reasons for exclusion, and the final number of studies included. After screening and eligibility assessment, 25 studies were included in the narrative synthesis (Figure 1) (Page et al., 2021).

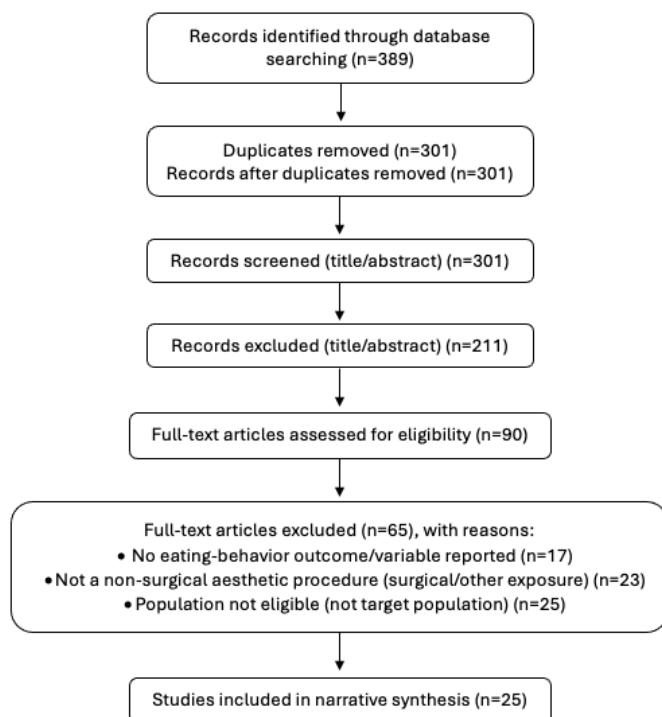


Figure 1. Study selection flow diagram.

Data extraction and quality appraisal

From each study we extracted design, country and setting, sample characteristics, type of non-surgical procedure, measures of body image, motivation and eating-behavior outcomes, as well as follow-up period when available.

Methodological quality was appraised according to design. For cross-sectional studies, the AXIS tool was used. For non-randomized observational comparative studies, ROBINS-I risk-of-bias domains were considered, integrating qualitative appraisal into the interpretation of results and the strength of conclusions. Synthesis was conducted narratively, grouping findings by conceptual themes and highlighting consistencies, discrepancies, and research gaps (Downes et al., 2016; Schünemann et al., 2019; Sterne et al., 2016).

Results

Study selection and characteristics

The database search identified 389 records. After removing duplicates ($n = 88$), 301 records were screened by title and abstract, and 90 full-text articles were assessed for eligibility. In total, 25 studies met the inclusion criteria and were included in the narrative synthesis.

Overall, the included studies comprised predominantly observational designs (cross-sectional and, to a lesser extent, longitudinal reports) in adult samples, frequently drawn from aesthetic-treatment-seeking settings or community/online populations relevant to appearance-related motivations. The evidence covered a range of non-surgical aesthetic exposures, including minimally invasive facial treatments (e.g., injectables and other office-based procedures) and non-invasive, device-based approaches for cosmetic improvement or body contouring. Across studies, body-image constructs (e.g., body dissatisfaction, dysmorphic concerns, and appearance-based comparison) were examined alongside eating-related outcomes, including disordered eating symptoms or screening, dietary restraint, binge/emotional eating patterns, and related motivational/dietary behaviors.

The internalization of appearance ideals and constant social comparison on networks increase body dissatisfaction and constitute a pathway toward risky eating behaviors; in addition, habitual use of selfies and filters is associated with distortions of self-image that can heighten motivation to seek cosmetic procedures, integrating a cognitive-affective circuit in which perceived improvement in appearance acts as a short-term reinforcer while eating regulation attempts to sustain visible changes (Jiotsa et al., 2021; Rajanala et al., 2018; Sarwer, 2019).

Among patients seeking non-surgical cosmetic treatments, the presence of traits or diagnoses compatible with body dysmorphic disorder has been documented at elevated prevalences and is linked to unrealistic expectations and greater emotional vulnerability, conditions that may translate into rigid or compensatory dietary strategies to “maintain” aesthetic results and into a higher likelihood of eating psychopathology when these expectations are not met (Kaleeny et al., 2024; Pikoos et al., 2021; Zimmer et al., 2022).

There are, however, potentially protective psychological factors. Intuitive eating shows inverse associations with eating psychopathology and positive associations with well-being and body image in meta-analyses and longitudinal studies, suggesting that interventions aimed at making the relationship with food and the body more flexible could modulate the impact of aesthetic intervention on eating behavior and favor more adaptive trajectories after the procedure (Hazzard et al., 2021; Linardon et al., 2021; Messer et al., 2023).

Importantly, the evidence base differs by anatomical target and study purpose. Studies of facial, minimally invasive procedures (e.g., injectables and other office-based

treatments) predominantly prioritize patient-reported outcomes, such as satisfaction, quality of life, and psychosocial functioning, often measured with instruments like FACE-Q, whereas explicit dietary intake, adherence, or eating-style outcomes are rarely included as primary endpoints. In contrast, studies of non-surgical body-contouring procedures frequently standardize or actively control diet and weight (e.g., instructing participants not to modify diet/lifestyle and to maintain weight within predefined margins) to isolate the device effect. This methodological divergence strengthens internal validity for procedure-related outcomes, but can attenuate the detection of naturally occurring post-procedure eating-behavior changes and therefore should be considered when interpreting the scope and limits of available findings.

Methodological note on heterogeneity

Because the literature on non-surgical aesthetic procedures and eating-related outcomes is methodologically diverse and still developing, this narrative review synthesized evidence across available designs (e.g., cross-sectional observational studies, prospective reports, and interventional trials when present) to identify convergent patterns rather than to estimate pooled effect sizes. This heterogeneity precluded quantitative synthesis and requires cautious interpretation: cross-sectional findings cannot establish causality, and trials that control diet/weight to isolate procedure effects may underestimate spontaneous changes in eating behavior. Accordingly, conclusions are framed as thematic, hypothesis-generating inferences grounded in the consistency of signals across study types and appraisal-informed interpretation.

Reported dietary changes after non-surgical procedures

Direct evidence quantifying changes in eating behavior after non-surgical aesthetic procedures is limited. Most studies focus on patient-reported outcomes and use scales such as FACE-Q, where consistent increases in facial satisfaction, psychological well-being, and social functioning are observed after neuromodulators and fillers, but intake, dietary adherence, or eating styles are rarely measured explicitly as primary endpoints (Ascher et al., 2020; Ottenhof et al., 2022; Qureshi et al., 2017).

In non-surgical body contouring, cryolipolysis trials often neutralize the dietary component to isolate the device effect, for example by instructing participants not to make relevant changes in diet or lifestyle and to maintain weight within narrow margins during follow-up. This control increases the internal validity of the procedure effect but reduces the likelihood of detecting eating changes that occur naturally after treatment, which partly explains the paucity of data on post-procedure dietary modifications in this area (Ingargiola et al., 2015; Kilmer et al., 2016).

These design decisions justify incorporating nutritional and behavioral outcomes in future research, as dietary status influences wound healing, aesthetic results, and possibly the sustainability of perceived change. Recent reviews in plastic surgery, aesthetic dermatology, and minimally invasive procedures recommend evaluating and optimizing nutritional status in the peri-procedural period and during aesthetic care, which supports integrating standardized measurements of eating behavior and nutritional counseling into research protocols and clinical practice for non-surgical procedures (Roy et al., 2018; Seth et al., 2024; Vitagliano et al., 2023).

Mediators and moderators of dietary change after non-surgical procedures

Dietary changes following a non-surgical aesthetic intervention likely depend on psychological mediators identified in the literature on body image and eating. Body-image flexibility and intuitive eating are associated with lower eating psychopathology and better well-being and prospectively predict fewer risky behaviors, suggesting a protective effect that could modulate the direction of behavioral change after the procedure (Braun et al., 2021; Hazzard et al., 2021; Linardon, 2021).

There are also vulnerability factors that may steer these changes toward maladaptive trajectories. Individuals seeking non-surgical cosmetic procedures show elevated prevalences of dysmorphic traits and a higher risk of unrealistic expectations; moreover, exposure to social networks and frequent appearance comparison are associated with greater body dissatisfaction, creating a context conducive to rigid or compensatory dietary (Jiotsa et al., 2021; Kaleeny et al., 2024; Pikoos et al., 2021).

These findings support a clinical moderation hypothesis: patients with greater resources in body-image flexibility and intuitive eating would tend to adopt sustainable nutritional adjustments to maintain results, whereas those with greater body distress or dysmorphic traits could shift toward risky patterns. Hence the relevance of integrating systematic screening for eating psychopathology and body dysmorphic disorder into the aesthetic care pathway, together with brief interventions geared toward intuitive eating and psychoeducation on body image, to promote adaptive trajectories after the intervention (Barone et al., 2024; Hazzard et al., 2021; Rück et al., 2024).

Clinical risks and paradoxes

Although many patients report greater satisfaction with appearance and well-being after non-surgical procedures, a relevant fraction presents psychological vulnerabilities that may push eating behavior toward maladaptive patterns. Clinically significant prevalences of eating disorders and psychiatric comorbidity have been documented in aesthetic contexts, suggesting that perceived improvement in appearance does not necessarily translate into healthy regulation of intake (Zimmer et al., 2022). The presence of traits or diagnoses compatible with body dysmorphic disorder is particularly problematic because it amplifies unrealistic expectations and reinforces rigid body-control strategies, including dietary restriction, with estimated prevalences near one-fifth in aesthetic populations and with high figures specifically in non-surgical settings (Kaleeny et al., 2024; Pikoos et al., 2021). In addition, the sociocultural environment that fuels aesthetic demand, especially intensive use of social networks and “fitspiration” content, is associated with greater body dissatisfaction and higher risk of eating psychopathology, creating fertile ground for extreme dietary responses in the attempt to maintain results (Jerónimo & Carraça, 2022; Jiotsa et al., 2021; Yurtdaş-Depboylu et al., 2022).

Research gaps and future agenda

Direct literature measuring changes in diet, adherence, or eating styles after non-surgical procedures remains scarce, in part because many trials control or neutralize the dietary component to isolate the device effect. Longitudinal studies are needed that integrate standardized measures of eating behavior and body image before and after the intervention,

together with clinical and quality-of-life outcomes. In aesthetic clinical practice, it is reasonable to incorporate brief, validated screening for eating disorders, for example with the SCOFF (Sick, Control, One Stone, Fat, Food), and for body dysmorphic disorder, for example with the BDDQ-DV (Body Dysmorphic Disorder Questionnaire), as well as established instruments for eating psychopathology such as the EDE-Q (Eating Disorder Examination–Questionnaire), so that teams can identify needs for nutritional and psychological support in a timely manner and evaluate the impact of interventions on eating behavior (Czernecka et al., 2023; Jennings et al., 2017; Morgan et al., 1999, 2000).

Discussion

The assembled evidence suggests two plausible trajectories after a non-surgical aesthetic intervention. In patients who experience a stable improvement in body image, indirect signals consistent with greater self-care can be observed that could include sustainable nutritional adjustments, whereas in those with persistent body dissatisfaction or unrealistic expectations the likelihood of rigid or compensatory dietary strategies increases. This interpretation is consistent with the association between body dissatisfaction and maladaptive eating styles, and with the protective role of intuitive eating in both meta-analyses and longitudinal studies, which show fewer risky eating behaviors and better psychological health when a flexible relationship with food and the body is encouraged (Eck et al., 2022; Hazzard et al., 2021; Linardon et al., 2021).

Comparison with surgical contexts reinforces the importance of psychological and dietary components. The bariatric surgery literature documents the emergence or recurrence of eating-disorder symptoms during follow-up, underscoring that bodily change by itself does not guarantee healthy regulation of intake and that motivational and coping factors are determinants of the subsequent trajectory (Taba et al., 2021). In non-surgical aesthetics, elevated prevalences of traits and diagnoses compatible with body dysmorphic disorder have been described among treatment seekers; this profile is associated with unrealistic expectations, greater distress, and poorer behavioral adjustment, and psychological outcomes after cosmetic procedures are unpredictable or poor when dysmorphia is present, such that cosmetic treatment is not recommended as an intervention in these cases (Kaleeny et al., 2024; Pikoos et al., 2021; Rück et al., 2024).

The sociocultural environment that fuels aesthetic demand also interacts with eating behavior. Intensive social-media use increases social comparison and is associated with greater body dissatisfaction and drive for thinness; moreover, recent years have seen increases in indicators of eating psychopathology in populations with high exposure to image-based platforms, suggesting that patients who seek non-surgical procedures may arrive with a preexisting load of risk that should be identified prior to intervention (Jiotsa et al., 2021; Sanzari et al., 2023). This convergence justifies that clinical teams systematically explore the relationship between aesthetic motivations, social-media use, and eating regulation, considering that these factors may modulate the direction of dietary change after the procedure.

Another important limitation for interpreting dietary changes is methodological. Many non-surgical body-contouring trials deliberately control or neutralize diet to isolate the device effect, for example by instructing

participants to maintain stable weight or to avoid relevant lifestyle changes during follow-up. This improves internal validity for local efficacy but reduces the likelihood of detecting eating changes that naturally occur after treatment and perpetuates the lack of direct evidence on post-procedure dietary modifications; the cryolipolysis literature illustrates this dilemma well (Kilmer et al., 2016; Krueger et al., 2014). In parallel, facial studies rely largely on patient-reported outcomes with instruments such as FACE-Q, which show consistent gains in satisfaction, psychological well-being, and social domains after neuromodulators and fillers, but rarely include nutritional endpoints, limiting inference about eating behavior (Ascher et al., 2019; Ottenhof et al., 2022).

From these convergences direct clinical implications arise. First, it is prudent to incorporate brief, validated screening for eating psychopathology and body dysmorphic disorder into aesthetic assessment, using tools feasible in clinic such as the SCOFF for eating disorders and the BDDQ-DV for dysmorphia, and complementing with established measures of eating psychopathology when pertinent, such as the EDE-Q, to establish a baseline useful for follow-up (Czernecka et al., 2023; Jennings & Phillips, 2017; Morgan et al., 1999). Second, integrating peri-procedural nutritional counseling is consistent with the plastic- surgery and dermatology literature, where nutritional status affects wound healing, aesthetic results, and patient experience; therefore, dietary assessment and nutrition education should be considered standard components of care in non-surgical procedures (Roy et al., 2018; Seth et al., 2024). Third, there are opportunities for psychological interventions aimed at strengthening protective factors; intuitive eating and related constructs have been linked to better well-being, fewer dysregulated behaviors, and, in some studies, better diet quality, suggesting that brief psychoeducational interventions could favor adaptive trajectories after aesthetic intervention (Braun et al., 2021; Christoph et al., 2021; Hazzard et al., 2021).

Pre–post cohorts with at least three to six months of follow-up are needed that integrate standardized measures of body image and eating behavior together with clinical and quality-of-life outcomes, explicitly recording the social-media context and patient expectations. In body-contouring studies, it is advisable to compare arms with dietary control versus usual-practice arms to estimate the effect of procedures on real eating changes. In facial studies based on FACE-Q, it will be essential to add modules or parallel instruments for eating behavior and motivation, so that improvements in body image can be linked to changes in intake, adherence, and eating styles. This integration would allow a shift from indirect inferences to causal estimates and would open the door to combined aesthetic–nutrition–psychology interventions that optimize the sustainability of results in the medium term (Ascher et al., 2019; Linardon et al., 2021; Ottenhof et al., 2022).

Conclusions

These findings indicate that non-surgical aesthetic intervention intersects with eating behavior through identifiable psychological pathways. In individuals who report a stable improvement in body image after the procedure, it is plausible to observe more sustainable nutritional adjustments, whereas in those with persistent body distress or unrealistic expectations there is an increased risk of rigid or compensatory dietary strategies. This pattern is consistent with the association between body dissatisfaction and maladaptive

eating styles and with evidence that intuitive eating is linked to lower eating psychopathology and better well-being in meta-analyses and longitudinal studies (Eck et al., 2022; Hazzard et al., 2020; Linardon, 2021). In populations seeking aesthetic treatments, relevant prevalences of symptoms or diagnoses of body dysmorphic disorder and eating disorders have been described, reinforcing the relevance of screening strategies and interdisciplinary support from the pre-procedure phase (Kaleeny et al., 2024; Pikoos et al., 2021; Zimmer et al., 2022). In clinical practice, integrating dietary assessment and nutritional counseling is consistent with the plastic-surgery and dermatology literature, in which nutritional status influences wound healing and aesthetic outcomes, making it reasonable to consider nutritional and psychoeducational intervention as standard components of care in non-invasive aesthetics (Roy et al., 2018; Seth et al., 2024).

Limitations

Interpretation of the relationship between non-surgical procedures and dietary changes is constrained by methodological limits of the available evidence. Many body-contouring trials control or neutralize diet to isolate the device effect, which prevents capturing dietary modifications that occur naturally after treatment and creates a gap in direct data on intake, adherence, or eating styles during follow-up (Krueger et al., 2014; Kilmer et al., 2016). In facial procedures, outcomes are often based on patient-reported measures of quality of life and body image such as FACE-Q and rarely incorporate nutritional results, which limits causal inference about eating behavior (Ascher et al., 2019; Ottenhof et al., 2022). Added to this are heterogeneous designs and samples, the predominance of cross-sectional studies susceptible to confounding and selection bias, and the scarcity of prolonged follow-up to assess sustainability of change. Likewise, the influence of the sociocultural context and intensive social-media use on appearance-based comparison and eating psychopathology introduces confounders that are seldom measured in a standardized manner, suggesting the need for protocols that incorporate these variables systematically (Jiotsa et al., 2021). Taken together, longitudinal pre-post research is required with standardized measurements of body image and eating behavior, incorporation of brief validated screenings for eating disorders and body dysmorphic disorder, and designs that compare usual practice versus dietary control to estimate more precisely the direction and magnitude of changes (Czernecka et al., 2023; Morgan et al., 1999).

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