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# Seeing Without Feeling: Digital Biopedagogies and the Anesthesia of Aesthetic Experience in Health Education


**Paulo Roberto Ramos[1], Antonio Fábio Ferreira[2], Jéssica Maria de Jesus Castro[3], Neemias da Silva Souza[4], Isabella Cristina Barbosa de Andrade[5], Maria de Jesus de Sousa[6], Ádilla Katarinne Gonçalves e Sá[7], Carla Valois Ribeiro[8], Ezequias Martins dos Santos[9]**

[1,2,3,4,8,9]Universidade Federal do Vale do São Francisco, Brazil.

[5]Universidade Federal do Oeste da Bahia, Brasil.

[6]Universidade Estadual do Piauí, Brasil.

[7]Universidade do Estado da Bahia, Brasil.



**ABSTRACT:** Digital aesthetic culture has increasingly redefined health through visual and normative standards, raising concerns about its impact on how bodies are perceived and evaluated, particularly in health education. This study examines how digitally mediated body ideals operate as biopedagogical mechanisms that reshape aesthetic experience and influence ethical perception among students. The main objective was to analyze how exposure to algorithmically curated body representations contributes to the fragmentation of aesthetic experience and the emergence of normative biases in professional formation. An integrative literature review was conducted between November 2025 and April 2026 across two international databases. The initial search retrieved 1,161 studies, from which a final corpus of 27 articles was selected based on predefined inclusion and exclusion criteria. Data were analyzed through thematic synthesis and epistemological triangulation. The results revealed five analytical categories: the body as a site of self-optimization, the aestheticization of health through fitspiration, the psychological impacts of comparison and dissatisfaction, the emergence of aesthetic bias in health students, and broader mental health and social tensions. The discussion demonstrated that digital environments produce an "algorithmic gaze" that fragments experience, leading to what is conceptualized as the anesthesia of the gaze, a condition in which perception becomes saturated yet ethically weakened. The study concludes that digital biopedagogies not only regulate bodies but also reshape how they are experienced and judged. It highlights the need to incorporate critical and aesthetic dimensions into health education, fostering more reflective, empathetic, and ethically grounded professional practices.



**KEYWORDS**: Embodiment. Subjectivity. Social Comparison. Health Students. Digital Media.


## I. INTRODUCTION

Digital environments have progressively reshaped the meaning of health, shifting it from clinical and functional dimensions toward highly visual and aestheticized standards. Social media platforms now act as producers of bodily norms, where visibility operates as a marker of legitimacy. In this context, the body is increasingly evaluated not by physiological integrity, but by its alignment with circulating visual ideals reinforced through algorithmic curation (Ahrens et al., 2022; Bell et al., 2024).

The expansion of fitspiration content illustrates this shift. Although framed as motivational, such material consolidates narrow representations of health centered on lean, disciplined bodies. Analyses show that these images privilege aesthetic performance over well-being, reinforcing standardized and objectified bodily models (Deighton-Smith & Bell, 2017; Bailey et al., 2021). Rather than diversifying meanings of health, this visual regime reduces them to conformity with specific appearances.

These dynamics also shape subjective experience. Repeated exposure to curated images fosters comparison processes associated with dissatisfaction and diminished self-esteem (Chansiri & Wongphothiphan, 2021; Hussain & Shahid, 2024). At the same time, body positivity movements reveal tensions within digital spaces, where resistance narratives often remain embedded within the same aesthetic logic they seek to challenge (Zavattaro, 2020). Health, therefore, emerges as a contested construct increasingly tied to visual conformity.

The influence of digital aesthetic norms extends into professional formation, particularly in health education. Students do not merely observe these representations; they internalize them as implicit criteria for evaluating bodies and health. This process raises concerns about the development of the professional gaze in fields where ethical judgment and inclusive care are central.

Research indicates that exposure to media-driven standards is associated with weight bias among health students, potentially shaping future clinical interactions (Flauzino et al., 2024). Similarly, body consciousness and lifestyle perceptions among medical students are strongly influenced by social media engagement (Pop et al., 2021). Such findings suggest that professional identity is deeply intertwined with digital culture.

The issue thus shifts from self-perception to the perception of others. When aesthetic norms become internalized as indicators of health, there is a risk that care practices may be guided by visual judgment, undermining holistic and equitable approaches.

Although digital body culture has been widely studied, a theoretical gap remains. Existing research highlights how social media functions as a pedagogical space that promotes self-regulation and bodily optimization, aligning individuals with dominant norms through biopedagogical processes (Camacho-Miñano et al., 2019). Visual media further embeds these dynamics by prescribing how bodies should appear and perform (Drake & Radford, 2019).

These approaches, however, emphasize control and normalization while overlooking the transformation of lived experience. From a Deweyan perspective, aesthetic experience involves continuity, integration, and meaning-making. Digital culture appears to disrupt this process, replacing embodied engagement with fragmented image consumption. The lack of integration between biopedagogical frameworks and aesthetic experience theory limits a deeper understanding of how digital norms reshape perception and relationality.

This study examines the intersection between digital culture, bodily regulation, and aesthetic experience in health education. The guiding question is: In what ways does digital aesthetic culture function as a biopedagogical mechanism that fragments aesthetic experience, in Deweyan terms, among health students, thereby shaping their ethical and professional perception of the body?

To address this, an integrative literature review is conducted to synthesize empirical and theoretical contributions within a unified framework. The objective is to develop a critical interpretation of how digital biopedagogies and fragmented aesthetic experience converge in what is conceptualized here as the “anesthesia of the gaze” in health professional education.

## II. THEORETICAL FRAMEWORK: THE EPISTEMOLOGICAL TRIANGLE

### 2.1. Biopedagogies and the governance of bodies

The notion of biopedagogies offers a critical lens through which contemporary regimes of bodily regulation can be understood, particularly in contexts where power operates less through coercion and more through internalized norms. Within digital culture, the body becomes an ongoing project of optimization, shaped by subtle pedagogical processes that instruct individuals on how to see, evaluate, and modify themselves. As Camacho-Miñano et al. (2019) argue, social media environments function as spaces where “young women learn about bodies, health and fitness” through continuous exposure to normative representations, revealing how pedagogy is embedded in everyday digital practices.

This learning process does not occur explicitly. Instead, it unfolds through repetition, visibility, and comparison, fostering a regime of self-surveillance in which individuals become both subjects and agents of control. Drake and Radford (2019) critically note that such visual cultures embed “biopedagogical messages” that prescribe appropriate bodily forms, effectively positioning certain bodies as aspirational while marginalizing others. What is at stake is not merely representation, but the production of a normative horizon that governs how bodies should exist.

The expansion of digital self-tracking technologies further intensifies this logic. Della Bianca (2022) conceptualizes the body as a “pedagogical site,” emphasizing how apps and platforms transform bodily data into actionable knowledge, encouraging users to constantly monitor and adjust their behaviors. This process aligns with broader dynamics identified by Hardey (2019), who describes contemporary health practices as forms of “performance-seeking,” where individuals are compelled to demonstrate optimization through measurable outputs. In this configuration, health is no longer an internal state but a visible performance subject to continuous evaluation.

Gendered dimensions of this governance cannot be overlooked. Wissinger (2017) highlights how wearable technologies and digital fitness cultures reproduce expectations around discipline and bodily control, particularly for women, reinforcing the idea that the body must be constantly managed and improved. Taken together, these perspectives reveal a shift from external regulation to internalized discipline, where individuals actively participate in their own normalization.

The digital extension of biopolitics thus operates through a paradox. While it appears to empower individuals with tools for self-improvement, it simultaneously constrains them within narrow frameworks of legitimacy. The body becomes a site of constant scrutiny, where deviation from aesthetic norms is subtly framed as failure. This raises a critical question for health education: if future professionals are formed within such regimes, to what extent can their gaze remain free from the imperatives of normalization?

### 2.2. Dewey and aesthetic experience as continuity and integration

In contrast to the fragmented and prescriptive nature of digital biopedagogies, Dewey’s concept of aesthetic experience offers a radically different understanding of how individuals relate to the world and to their own bodies. Experience, in this perspective,

is not reducible to isolated perceptions or visual encounters. It emerges as a continuous process in which perception, emotion, and action are integrated into a meaningful whole.

The distinction between experience and representation becomes central. Whereas representation isolates the body as an object to be observed, measured, and judged, experience situates the body within a dynamic flow of interactions. The body is not something one has, but something one lives. Health, therefore, cannot be confined to visual conformity or external standards. It must be understood as a qualitative condition arising from the harmonious integration of bodily processes, environmental engagement, and subjective meaning.

This perspective challenges the dominance of image-based epistemologies. When the body is reduced to appearance, its experiential dimension is obscured. The richness of lived experience is replaced by a superficial engagement with surfaces, where depth, temporality, and transformation are lost. Dewey's framework invites a reorientation, shifting the focus from how bodies look to how they are lived and felt.

Such a shift carries significant implications for health education. If professional formation is grounded in fragmented perceptions, the capacity for empathetic and holistic care may be compromised. Conversely, an approach informed by aesthetic experience emphasizes continuity, relationality, and attentiveness to the lived realities of others. This opens the possibility of rethinking the ethical foundations of care beyond normative visual standards.

### 2.3. Digital culture as mediator of fragmented experience

Digital culture does not merely transmit representations; it reorganizes the very conditions under which experience occurs. Algorithmic systems curate content in ways that prioritize engagement, repetition, and visual intensity, producing what can be described as an "algorithmic gaze." This gaze is not neutral. It selects, amplifies, and normalizes specific bodily forms, shaping perception through patterns of visibility and omission.

Empirical studies demonstrate how fitness-related content on social media is systematically curated to emphasize particular ideals. Curtis et al. (2023) highlight that Instagram fitness accounts undergo implicit "credibility screening," privileging bodies that align with dominant aesthetic norms. Similarly, Ahrens et al. (2022) show that fitness posts consistently reproduce standardized representations over time, suggesting a stabilization of visual expectations rather than diversification.

The consequences of this curation extend beyond representation. Bell et al. (2024) observe that fitspiration content operates through recurring visual and thematic patterns designed to "inspire fitness," yet these patterns often reinforce narrow definitions of success and health. The repetition of such imagery creates a feedback loop in which visibility becomes validation, and validation reinforces visibility.

At the experiential level, this dynamic contributes to fragmentation. The logic of infinite scrolling interrupts continuity, replacing sustained engagement with rapid, discontinuous exposure to images. Each image is consumed in isolation, detached from context and from the embodied processes it ostensibly represents. The result is a mode of perception characterized by immediacy without depth, intensity without integration.

This fragmentation has profound implications. When experience is reduced to a sequence of disconnected visual stimuli, the capacity to construct coherent and meaningful understandings of the body is diminished. The observer becomes attuned to surfaces rather than processes, to appearance rather than experience. In such conditions, the formation of an ethical and empathetic gaze becomes increasingly precarious, raising urgent questions about the role of digital culture in shaping how future health professionals perceive and engage with the bodies of others.

## III. METHODOLOGY

### 3.1. Design and methodological approach

This study was designed as an integrative literature review, a methodological approach particularly suited to the synthesis of heterogeneous evidence, including empirical, theoretical, qualitative, and conceptual studies. Unlike systematic reviews restricted to narrowly defined empirical outcomes, the integrative review allows the articulation of diverse forms of knowledge around a complex phenomenon, which is essential for examining the intersections between digital aesthetic culture, biopedagogies, body perception, and health education.

The methodological structure followed the principles proposed by Whittemore and Knafl (2005), who define the integrative review as a rigorous strategy capable of combining different methodological traditions in order to generate new theoretical understandings. This orientation was complemented by the procedural recommendations of Mendes et al. (2008), who emphasize the need for clear stages of problem formulation, literature search, data evaluation, analysis, and presentation of results. Souza et al. (2010) further support the use of integrative reviews in health-related fields because this method enables the incorporation of evidence into critical and reflective academic practice.

Given the theoretical density of the present study, the integrative review was not used merely to summarize findings. It was adopted as an interpretative method for conceptual synthesis. The objective was to identify how digital aesthetic culture operates as a biopedagogical mechanism and how such operation may fragment aesthetic experience, especially in the formation of health

students. Therefore, methodological rigor was combined with epistemological sensitivity, allowing the review to move beyond descriptive mapping toward critical theoretical construction.

### 3.2. Search strategy and databases

The bibliographic search was conducted between November 2025 and April 2026 in two international databases selected for their scope, indexing quality, and relevance to interdisciplinary research: Scopus and Web of Science. These databases were chosen because they include high-impact publications in health education, media studies, sociology of the body, psychology, digital culture, and educational theory.

The search strategy was structured through Boolean combinations designed to capture three central dimensions of the research problem: bodily governance, digital aesthetic culture, and educational/professional formation. The main search string was: ("Bio-pedagogy" OR "Biopolitics") AND ("Body Image" OR "Aesthetic Experience" OR "Self-perception") AND ("Social Media" OR "Instagram" OR "Digital Culture") AND ("Professional Education" OR "Higher Education").

Complementary combinations were also used to increase sensitivity and identify studies addressing related constructs, including fitspiration, self-tracking, wearable technologies, body positivity, weight bias, health students, and digital fitness culture. The search initially retrieved 1,161 references, which were exported, organized, and screened according to predefined eligibility criteria.

The search process was guided by conceptual relevance rather than keyword mechanicality alone. Since the article investigates a phenomenon that crosses disciplinary boundaries, the strategy aimed to capture studies that did not necessarily use the same terminology but addressed comparable processes, such as body surveillance, digital normalization, aesthetic comparison, health identity, and professional perception.

### 3.3. Inclusion and exclusion criteria

The eligibility criteria were defined before screening in order to ensure methodological transparency and analytical coherence. A Deweyan interpretative filter was applied throughout the selection process, prioritizing studies that addressed experience, perception, subjectivity, embodiment, or the qualitative transformation of the gaze in relation to digital body culture.

Inclusion criteria:

- Studies addressing digital aesthetic culture, social media, fitspiration, body image, body positivity, self-tracking, or wearable technologies.
- Studies examining body perception, self-perception, aesthetic norms, fitness identity, weight bias, or health-related body ideals.
- Studies involving students, young adults, health students, higher education contexts, or professional formation.
- Empirical, qualitative, quantitative, mixed-methods, theoretical, and conceptual studies relevant to the research question.
- Articles capable of supporting critical dialogue with biopedagogies, digital culture, or Deweyan aesthetic experience.
- Peer-reviewed publications available in full text.
- Studies published in English or Portuguese.

Exclusion criteria:

- Studies unrelated to digital media, body perception, health education, or aesthetic culture.
- Articles focused exclusively on clinical outcomes without discussion of subjectivity, perception, embodiment, or social meaning.
- Studies centered only on technical performance of apps or platforms without addressing bodily experience or identity.
- Publications without full-text access.
- Editorials, opinion pieces, non-academic essays, and non-peer-reviewed materials.
- Duplicated records across databases.
- Studies whose conceptual focus did not contribute to the epistemological triangle of this review.

### 3.4. Data extraction and analytical procedures

After the initial retrieval of 1,161 references, the records were organized for screening in successive stages. First, duplicates were removed. Titles and abstracts were then examined according to the inclusion and exclusion criteria. In the following stage, potentially eligible articles were read in full, with attention to their methodological design, conceptual contribution, population, theoretical orientation, and relevance to the guiding research question.

Data extraction was conducted through an analytical matrix containing the following fields: author and year, study objective, methodological design, population or corpus, digital platform or technological context, central findings, theoretical contribution, and relevance to the categories of biopedagogy, aesthetic experience, and professional perception. This procedure allowed the review to preserve methodological transparency while also enabling interpretative depth.

The analytical process followed a thematic synthesis strategy. Rather than treating the studies as isolated units, the findings were compared, grouped, and interpreted according to recurring conceptual patterns. The synthesis was organized around three

axes: the body as an object of governance, the aestheticization of health in digital culture, and the ethical-professional implications of digital body norms in health education.

Epistemological triangulation was then applied to connect empirical findings with the theoretical framework of the article. The first angle of the triangle examined biopedagogical processes of discipline, normalization, and self-surveillance. The second examined Deweyan aesthetic experience as continuity, integration, and embodied meaning. The third examined digital culture as a mediating structure that fragments perception through algorithmic visibility, repetition, and accelerated image consumption.

This table summarizes the systematic search process conducted across Scopus and Web of Science, detailing the Boolean strategies employed, the time frame of data collection, and the quantitative progression from initial retrieval to final inclusion. The search strings were designed to capture the intersection between biopolitics, body image, digital culture, and higher education, ensuring conceptual alignment with the epistemological framework of the study.

**Table 1. Search strategy, descriptors, databases, and study selection process**

| Database | Boolean Strategy (Core Terms) | Period of Search | Records Retrieved | Records Included (Final Corpus) |
|---|---|---|---|---|
| Scopus | ("Bio-pedagogy" OR "Biopolitics") AND ("Body Image" OR "Aesthetic Experience" OR "Self-perception") AND ("Social Media" OR "Instagram" OR "Digital Culture") AND ("Higher Education" OR "Professional Education") | Nov 2025 – Apr 2026 | 684 | 14 |
| Web of Science | ("Biopolitics" OR "Body Regulation") AND ("Body Image" OR "Fitness Culture") AND ("Social Media" OR "Fitspiration") AND ("Students" OR "Health Education") | Nov 2025 – Apr 2026 | 477 | 13 |
| **Total** | — | — | **1,161** | **27** |

**Source:** The authors themselves.

The data reveal a substantial reduction from the initial 1,161 records to a final corpus of 27 studies, reflecting a rigorous screening process guided by conceptual relevance rather than volume. This reduction underscores the specificity of the research focus, particularly the application of the Deweyan filter, which prioritized studies addressing experience, perception, and subjectivity. The balanced distribution between databases also reinforces the robustness of the search strategy, indicating that the selected corpus is both comprehensive and theoretically coherent with the aims of the review.

### 3.5. Quality appraisal and synthesis strategy

Quality appraisal was conducted according to the methodological coherence, conceptual relevance, analytical depth, and contribution of each study to the research question. Because this review includes heterogeneous designs, the appraisal did not apply a single hierarchical evidence scale. Instead, the evaluation considered whether each study offered robust evidence, consistent argumentation, transparent procedures, and meaningful contribution to the understanding of digital body culture and health education.

Qualitative and theoretical studies received particular analytical attention because they offered greater capacity to illuminate the symbolic, pedagogical, and epistemological dimensions of the phenomenon. Quantitative studies were also included when they contributed evidence regarding associations between social media exposure, body dissatisfaction, self-esteem, weight bias, or health-related perceptions.

The synthesis did not aim to produce statistical aggregation. No meta-analysis was conducted, since the corpus included diverse methods, populations, and theoretical orientations. The interpretative integration sought to generate a critical conceptual model capable of explaining how digital aesthetic culture functions as a biopedagogical field and how it may erode the conditions of Deweyan aesthetic experience in health education. This synthesis supports the central theoretical contribution of the article: the concept of the anesthesia of the gaze, understood as the weakening of ethical, embodied, and relational perception under conditions of digital aesthetic saturation.

## IV. RESULTS

### 4.1. The body as a pedagogical object: from regulation to self-optimization

The synthesis of the selected studies reveals a consistent transformation of the body into a pedagogical object, governed by logics of optimization, monitoring, and performance. Within digital environments, the body is no longer merely lived but

continuously produced as a project to be managed. Della Bianca (2022) conceptualizes this process by describing the body as a "pedagogical site" (p. 67), emphasizing how digital technologies structure learning processes around bodily regulation. This framing suggests that platforms and applications do not simply reflect bodily practices; they actively teach individuals how to engage with their own corporeality.

The imperative of self-optimization is further reinforced through performance-oriented health cultures. Hardey (2019) highlights how contemporary health practices increasingly involve "performance-seeking" behaviors (p. 3), where individuals are driven to demonstrate measurable improvements. In this context, the body becomes a visible indicator of discipline, transforming health into a form of public accountability. Such dynamics align with Wissinger's (2017) analysis, which underscores how digital fitness cultures promote continuous bodily management, particularly through wearable technologies that normalize self-tracking and constant improvement.

This regime of optimization is not neutral. It constructs specific expectations regarding what bodies should achieve and how they should appear. Greyling and Naudé (2023) show that engagement with fitness content on social media contributes to the development of a "fitness identity" (p. 45), where individuals internalize aesthetic and performance standards as markers of personal value. The body thus becomes a site of moral evaluation, where discipline and success are visually inscribed.

Taken together, these findings indicate a shift from external regulation to internalized self-governance. The pedagogical function of digital culture lies precisely in this subtle transition, where individuals willingly adopt practices of surveillance and correction. The body, in this configuration, is not simply regulated; it is continuously reworked as a project of optimization, shaped by normative expectations that operate through visibility and repetition.

### 4.2. Fitspiration and the aestheticization of health

The analysis of fitspiration content reveals a strong convergence toward the aestheticization of health, in which visual representation becomes central to defining what it means to be healthy. Deighton-Smith and Bell (2017) demonstrate that fitspiration images frequently engage in "objectifying fitness" (p. 470), presenting bodies as visual objects to be admired, evaluated, and emulated. This objectification reduces complex bodily processes to surface-level attributes, privileging appearance over function.

Recent studies confirm the persistence and intensification of this pattern. Bell et al. (2024) identify recurring visual and thematic structures in fitspiration content, noting that these posts are explicitly designed to "inspire fitness" (p. 5), yet often rely on highly standardized representations. Similarly, Bailey et al. (2021) critically question the inclusivity of such narratives, showing that even initiatives framed as accessible, such as #YogaForEveryone, tend to reproduce the "idealised flexible bodymind" (p. 829), reinforcing rather than challenging dominant norms.

Comparative analyses further expose the limits of diversity within digital fitness cultures. Webb et al. (2019) examine alternative hashtags such as #curvyfit and #curvyyoga, revealing that although they introduce variations in body representation, they often remain constrained by aesthetic expectations. Curtis et al. (2023) complement this perspective by demonstrating that fitness accounts undergo implicit "credibility screening" (p. 6), where bodies that align with dominant ideals are more likely to gain visibility and authority.

The cumulative effect of these dynamics is the consolidation of a visual regime in which health is equated with aesthetic conformity. Rather than expanding the understanding of health, fitspiration narrows it, reinforcing a limited set of acceptable bodies. This aestheticization not only shapes how individuals perceive themselves but also influences broader cultural expectations regarding health, normality, and desirability.

### 4.3. Psychological and subjective impacts of digital body culture

The integrative analysis reveals consistent evidence of the psychological and subjective consequences associated with exposure to digital body ideals. Central among these is the role of social comparison, which operates as a key mechanism linking visual exposure to self-perception. Ahadzadeh et al. (2022) emphasize that the impact of fitspiration images is mediated by "appearance self-schema" (p. 2), indicating that individuals who place greater importance on physical appearance are more vulnerable to negative effects.

This vulnerability is reflected in broader patterns of self-esteem and body satisfaction. Chansiri and Wongphothiphan (2021) identify significant indirect effects of Instagram exposure on women's self-esteem, highlighting the mediating role of comparison processes. Similarly, Fatt et al. (2019) show that engagement with #malefitspo content is associated with lower body satisfaction among male users, demonstrating that these dynamics are not restricted to female audiences.

Longitudinal evidence further complicates this picture. Breves et al. (2025) investigate the effects of both fitspirational and body-positive influencers, suggesting that while some content may promote well-being, the overall impact remains ambivalent and context-dependent. Frühauf et al. (2024) reinforce this ambivalence by questioning whether fitspiration functions as "inspiration or threat" (p. 3), particularly among adolescents.

Additional findings point to broader psychological risks. Hussain and Shahid (2024) report associations between social media use and negative body image outcomes among university students, emphasizing the cumulative effects of repeated exposure.

These results suggest that digital body culture does not merely influence isolated perceptions but contributes to sustained patterns of dissatisfaction and self-evaluation.

Collectively, the evidence indicates that digital aesthetic environments intensify reflexive self-monitoring, often at the expense of psychological well-being. The body becomes a constant object of comparison, where perceived discrepancies between the self and idealized images generate tension, dissatisfaction, and, in some cases, distress.

### 4.4. Professional formation and the emergence of aesthetic bias

The implications of digital body culture extend beyond individual psychology into the domain of professional formation. The reviewed studies indicate that health students are not immune to the normative pressures circulating in digital environments. On the contrary, their training appears to be intersected by these influences in ways that may shape their future clinical practice.

Flauzino et al. (2024) identify a significant association between media interaction patterns and "weight bias among undergraduate nutrition students" (p. 2), suggesting that exposure to aesthetic norms may influence professional judgment. This finding raises concerns about the potential incorporation of visual biases into clinical reasoning, particularly in fields where body evaluation is central.

Complementary evidence is provided by Pop et al. (2021), who report gender differences in body consciousness and social media use among medical students. Their results indicate that engagement with digital platforms contributes to the internalization of lifestyle and body norms, reinforcing the idea that professional identity is shaped within broader cultural contexts. Safitri and Hasanah (2021) further support this perspective by showing that Instagram functions as a "reference for student body image" (p. 3), highlighting its role as an informal educational space.

These findings suggest that the formation of the professional gaze is not insulated from digital influences. Instead, it is permeated by aesthetic norms that may operate implicitly in clinical contexts. The risk, therefore, lies in the normalization of evaluative frameworks that prioritize appearance over holistic understanding, potentially compromising ethical and inclusive care.

### 4.5. Expanded consequences: mental health and social justice tensions

Beyond individual and professional domains, the effects of digital aesthetic culture extend into broader psychosocial and ethical dimensions. Evidence indicates that sustained exposure to idealized body representations is associated with increased risks of anxiety, depression, eating disorders, and sleep disturbances. Shehab et al. (2025) highlight how social media platforms contribute to "eating disorders, anxiety, depression, and insomnia in Gen Z" (p. S380), underscoring the scale and severity of these impacts.

At the same time, digital environments also host forms of resistance. Zavattaro (2020) discusses how body positivity movements seek to challenge dominant norms by promoting inclusivity and diversity, framing social media as a space for "social justice" (p. 282). However, the effectiveness of these movements remains contested, as they often operate within the same visual frameworks that sustain normative pressures.

This tension reveals a fundamental contradiction. Digital culture simultaneously produces and contests aesthetic norms, generating a complex landscape in which empowerment and regulation coexist. While alternative narratives emerge, they do not fully escape the logics of visibility and validation that structure digital interaction.

The integrative findings thus point to a multilayered phenomenon. Digital aesthetic culture not only shapes how bodies are seen but also how they are valued, judged, and governed. Its effects traverse psychological well-being, professional formation, and social justice, raising critical questions about the ethical implications of living, learning, and caring in environments saturated by images.

This table systematizes the 20 empirical and theoretical studies included in the integrative review, organizing them according to focus, methodological approach, key findings, and theoretical contributions. The structure enables a clear visualization of how different strands of research converge around the central themes of body regulation, digital culture, and health perception, while also highlighting the diversity of methodological designs employed across the corpus.

**Table 2. Synthesis matrix of included studies: characteristics, methods, and analytical contributions**

| Author (Year) | Study Focus | Methodological Approach | Key Findings | Theoretical Contribution |
|---|---|---|---|---|
| Della Bianca (2022) | Self-tracking and body regulation | Conceptual/ theoretical | Body configured as pedagogical site through apps | Digital biopedagogy and embodied governance |
| Hardey (2019) | Wearables and health performance | Sociological analysis | Health framed as performance-seeking behavior | Biopolitics of quantified self |
| Wissinger (2017) | Gender and | Theoretical | Continuous body | Gendered discipline and |

| | | | | |
|---|---|---|---|---|
| | wearable tech | | monitoring as normative practice | self-surveillance |
| Greyling & Naudé (2023) | Fitness identity | Quantitative | Social media shapes fitness-based identity | Internalization of aesthetic norms |
| Deighton-Smith & Bell (2017) | Fitspiration imagery | Content analysis | Fitness content is objectifying | Visual normalization of ideal bodies |
| Bell et al. (2024) | Fitspiration narratives | Mixed methods | Standardized visual patterns dominate | Reproduction of aesthetic ideals |
| Bailey et al. (2021) | Yoga and inclusivity | Qualitative | "Inclusive" content reproduces ideal body norms | Illusion of diversity in digital culture |
| Webb et al. (2019) | Curvy fitness content | Comparative analysis | Alternative bodies still aestheticized | Limits of body diversity online |
| Curtis et al. (2023) | Fitness accounts credibility | Content analysis | Ideal bodies gain algorithmic visibility | Algorithmic reinforcement of norms |
| Ahadzadeh et al. (2022) | Body image and self-schema | Quantitative | Appearance schema mediates impact | Cognitive vulnerability to fitspiration |
| Chansiri & Wongphothiphan (2021) | Instagram and self-esteem | Quantitative | Indirect negative effects on self-esteem | Social comparison mechanisms |
| Fatt et al. (2019) | Male fitspiration | Quantitative | Lower body satisfaction in men | Expansion of body pressure across genders |
| Breves et al. (2025) | Influencers (fit vs body positive) | Longitudinal | Mixed effects on well-being | Ambivalence of digital body narratives |
| Frühauf et al. (2024) | Adolescent girls | Mixed methods | Fitspiration can be threat or motivation | Dual impact of aesthetic exposure |
| Hussain & Shahid (2024) | Students and body image | Quantitative | Social media linked to dissatisfaction | Reinforcement of negative self-perception |
| Flauzino et al. (2024) | Nutrition students | Quantitative | Media use associated with weight bias | Aesthetic bias in professional training |
| Pop et al. (2021) | Medical students | Quantitative | Social media influences lifestyle and body awareness | Professional identity shaped by digital norms |
| Safitri & Hasanah (2021) | Students' body image | Survey | Instagram as body image reference | Informal pedagogical role of social media |
| Shehab et al. (2025) | Mental health (Gen Z) | Observational | Links to anxiety, EDs, insomnia | Psychopathological risks of digital exposure |
| Zavattaro (2020) | Body positivity | Theoretical | Social media as space of resistance | Digital activism and aesthetic politics |

**Source:** The authors themselves.

The synthesis reveals a strong concentration of evidence around three interconnected dynamics: the normalization of the body through digital biopedagogies, the consolidation of aesthetic standards via fitspiration content, and the psychological as well as professional consequences of sustained exposure to these norms. Notably, the recurrence of quantitative findings on body dissatisfaction and bias is complemented by theoretical analyses that expose the underlying mechanisms of power and visibility. This convergence strengthens the argument that digital culture operates simultaneously at subjective, social, and institutional levels, shaping not only how bodies are perceived, but how they are evaluated and governed.

## V. DISCUSSION

### 5.1. Digital biopedagogies as producers of the "algorithmic gaze"

The findings of this review indicate that digital environments do not merely disseminate body norms; they actively reorganize perception through what can be conceptualized as an algorithmic gaze. This gaze emerges at the intersection of biopedagogical processes and platform logics, where visibility operates as a mechanism of power. Camacho-Miñano et al. (2019) demonstrate that users "learn about bodies, health and fitness" through continuous exposure, suggesting that digital culture functions as an informal curriculum shaping bodily understanding. Such learning is not neutral; it is structured by repetition and amplification.

Drake and Radford (2019) emphasize that visual media embed "biopedagogical messages" (p. 812), prescribing not only how bodies should appear but also how they should be evaluated. These prescriptions are intensified by algorithmic filtering systems that privilege certain representations. Curtis et al. (2023) show that fitness content undergoes implicit "credibility screening" (p. 7), in which bodies aligned with dominant ideals gain visibility, while others remain marginal. Ahrens et al. (2022), through longitudinal analysis, reveal that such patterns are not incidental but systematically reproduced over time, stabilizing aesthetic expectations.

This convergence produces a shift from external surveillance to internalized judgment. The subject no longer needs to be observed; they become the observer of themselves. Visibility and power fuse into a single operation: to be seen is to be evaluated, and to be evaluated is to self-regulate. The algorithmic gaze thus operates as a contemporary extension of biopolitics, where control is exercised through participation rather than imposition. The critical question that emerges is whether this gaze can ever be neutral, or whether it inevitably carries the normative biases embedded in its architecture.

### 5.2. The fragmentation of aesthetic experience (Deweyan rupture)

From a Deweyan perspective, experience is defined by continuity, integration, and the capacity to generate meaning through interaction. The evidence synthesized in this review suggests that digital culture disrupts these conditions, replacing them with fragmented sequences of visual stimuli. Bailey et al. (2021) illustrate how even inclusive narratives reproduce the "idealised flexible bodymind" (p. 831), indicating that diversity is often subsumed within standardized forms. Webb et al. (2019) further show that alternative representations, such as curvy fitness content, remain constrained by aesthetic expectations, limiting their transformative potential.

Bell et al. (2024) identify recurring visual patterns in fitspiration content designed to "inspire fitness" (p. 6), yet these patterns rely on repetition rather than experiential depth. The result is a mode of engagement characterized by immediacy and discontinuity. Breves et al. (2025) add a temporal dimension to this analysis, demonstrating that prolonged exposure to such content produces fluctuating effects on well-being, suggesting instability rather than sustained integration.

This fragmentation has epistemological consequences. Experience, instead of unfolding as a coherent process, is reduced to isolated encounters with images. The body is no longer lived through continuity but consumed through discontinuity. Dewey's notion of "an experience" as a complete and transformative event becomes increasingly unattainable within environments structured by infinite scrolling. What remains is a series of partial impressions that fail to consolidate into meaningful understanding.

### 5.3. The "anesthetic" condition: when seeing replaces feeling

The cumulative effect of overstimulation in digital environments can be conceptualized as an anesthetic condition, in which perception is saturated but not deepened. Ahadzadeh et al. (2022) highlight that the impact of visual content depends on "appearance self-schema" (p. 4), indicating that individuals already oriented toward appearance are more susceptible to its effects. Chansiri and Wongphothiphan (2021) demonstrate that these processes indirectly affect self-esteem, reinforcing cycles of comparison and evaluation.

Frühauf et al. (2024) explicitly question whether fitspiration constitutes "inspiration or threat" (p. 5), reflecting the ambivalence of its psychological impact. Hussain and Shahid (2024) provide further evidence linking social media exposure to dissatisfaction among university students, suggesting that repeated engagement intensifies negative self-perception. Quantitatively, studies within the corpus consistently report associations between high social media use and lower body satisfaction, indicating a pattern rather than isolated outcomes.

This condition does not imply absence of perception, but rather its distortion. Individuals see more but feel less. The sensory overload produced by continuous exposure leads to desensitization, where images lose their capacity to evoke meaningful engagement. The body becomes an object of distant observation rather than empathetic understanding. In the context of health education, this shift raises critical ethical concerns. If future professionals are trained within anesthetic perceptual regimes, their ability to recognize the lived experience of patients may be compromised.

### 5.4. The erosion of ethical perception in health education

The internalization of digital aesthetic norms has direct implications for professional formation. Flauzino et al. (2024) identify measurable associations between media use and "weight bias among undergraduate nutrition students" (p. 3), indicating that exposure to visual standards influences evaluative judgments. This bias is not merely cognitive; it is embedded in perceptual

habits that shape how bodies are interpreted.

Pop et al. (2021) show that medical students' body consciousness and lifestyle perceptions are significantly influenced by social media, suggesting that professional identity is formed within digitally mediated environments. Safitri and Hasanah (2021) reinforce this argument by describing Instagram as a "reference for student body image" (p. 4), highlighting its role as an informal pedagogical agent.

The emergence of binary judgments becomes evident in this context. Bodies are categorized as fit or unfit, healthy or unhealthy, often based on visual criteria rather than holistic assessment. Such categorizations risk simplifying complex health conditions into aesthetic markers, undermining the principles of individualized and humanized care. The erosion of ethical perception thus operates through subtle normalization processes, where what is seen determines what is valued.

### 5.5. Toward an aesthetic education of the body

In response to these dynamics, the findings point toward the need for an aesthetic reorientation in health education. This reorientation involves reclaiming the Deweyan notion of experience as continuity, integration, and embodied meaning. Rather than treating the body as an object to be evaluated, education must emphasize the body as lived, relational, and dynamic.

Zavattaro (2020) highlights the role of body positivity movements in challenging dominant norms, framing them as part of a broader "social justice" agenda (p. 283). However, the persistence of aesthetic constraints suggests that resistance alone is insufficient. A more fundamental transformation is required, one that addresses the conditions under which perception is formed.

Shehab et al. (2025) demonstrate the broader mental health consequences of digital exposure, linking it to anxiety, eating disorders, and sleep disturbances. These findings reinforce the urgency of developing alternative frameworks for understanding health and the body. Greyling and Naudé (2023) indicate that identity formation is deeply influenced by digital environments, suggesting that educational interventions must engage directly with these contexts.

An aesthetic education of the body would involve shifting from body-image to body-lived, from evaluation to experience, from fragmentation to continuity. This shift is not merely pedagogical; it is ethical. It requires cultivating forms of perception that are capable of recognizing the complexity and diversity of human embodiment.

This table systematizes the central conceptual contribution of the study by contrasting dominant logics of digital biopedagogies with their corresponding Deweyan reframing. It articulates how mechanisms such as objectification, algorithmic filtering, and self-surveillance generate specific problems related to body perception, ethical judgment, and experiential fragmentation. In parallel, the table introduces an alternative framework grounded in aesthetic experience, emphasizing continuity, embodiment, and relationality as foundational elements for rethinking health and education.

**Table 3. Conceptual innovation matrix: From digital biopedagogy to Deweyan aesthetic reorientation**

| Dominant Logic (Digital Culture) | Operative Mechanism | Problem Produced | Deweyan Reframing | Educational Implication |
|---|---|---|---|---|
| Body-image | Visual objectification and comparison | Reduction of the body to appearance and performance | Body-lived (embodied, experiential, relational) | Foster perception grounded in lived experience rather than visual standards |
| Algorithmic gaze | Visibility filtering and repetition | Normative judgment and binary classification (fit/unfit) | Empathic continuity (relational perception over categorization) | Develop ethical sensitivity and non-judgmental clinical gaze |
| Biopedagogy | Self-surveillance and discipline | Internalization of aesthetic norms and self-regulation | Aesthetic education (integration of perception, emotion, and meaning) | Reorient training toward holistic and reflective body understanding |
| Infinite scroll logic | Fragmented and accelerated consumption | Disruption of experiential continuity and meaning-making | Integrated experience (beginning, development, fulfillment) | Encourage deep engagement and reflective learning processes |

| | | | | |
|---|---|---|---|---|
| Performance health | Quantification and optimization | Health reduced to measurable output and visual proof | Qualitative well-being (balance, rhythm, and lived quality) | Promote health as lived balance rather than aesthetic achievement |

**Source:** The authors themselves.

The analytical relevance of this matrix lies in its capacity to translate abstract theoretical tensions into actionable educational implications. It reveals that the issue is not limited to distorted representations of the body, but extends to the very structure of perception shaped by digital environments. By proposing a shift from body-image to body-lived, and from algorithmic judgment to empathic continuity, the matrix highlights the need for epistemological transformation in health education. This transformation challenges the dominance of visual normativity and opens space for more inclusive, ethical, and experientially grounded approaches to care.

The discussion developed throughout this study converges on a critical insight: digital aesthetic culture does not merely reshape how bodies are seen, but fundamentally reconfigures how they are experienced, interpreted, and ethically engaged with. The emergence of an algorithmically mediated gaze, sustained by biopedagogical dynamics that "teach" normative understandings of bodies (Camacho-Miñano et al., 2019) and reinforced through visual regimes that embed "biopedagogical messages" (Drake & Radford, 2019, p. 812), produces a gradual shift from embodied perception to surface-based evaluation. This shift is intensified by the repetitive and selective visibility patterns of digital platforms, where certain bodies are systematically legitimized while others are marginalized (Curtis et al., 2023; Ahrens et al., 2022).

The cumulative effect is what can be conceptualized as the anesthesia of the gaze, a condition in which perceptual saturation coexists with diminished sensibility, weakening the capacity for empathic engagement and holistic understanding. Evidence linking digital exposure to dissatisfaction, comparison, and psychological distress further reinforces this interpretation (Chansiri & Wongphothiphan, 2021; Hussain & Shahid, 2024; Shehab et al., 2025). Within health education, such transformations are particularly consequential, as they risk normalizing aesthetic bias and undermining ethical care practices (Flauzino et al., 2024; Pop et al., 2021).

Reintroducing aesthetic experience in the Deweyan sense, understood as continuity, integration, and embodied meaning, emerges not as a theoretical abstraction but as an urgent epistemological intervention. It calls for the reconstruction of perception as a relational and reflective process, capable of resisting reductive visual norms and fostering a more critical, inclusive, and ethically grounded professional formation.

## VI. CONCLUSION

This study set out to examine how digital aesthetic culture operates as a biopedagogical force capable of reshaping not only body perception, but the very conditions through which experience and ethical judgment are constituted in health education. The findings confirm that the continuous exposure to algorithmically curated body ideals contributes to the fragmentation of aesthetic experience, fostering a perceptual regime marked by comparison, normalization, and subtle forms of exclusion.

From this synthesis emerges the central conceptual contribution of this article: the notion of the "anesthesia of the gaze." This concept captures a paradox of contemporary digital life, in which individuals are exposed to an unprecedented volume of images while simultaneously experiencing a reduction in their capacity to perceive, feel, and ethically engage with the embodied reality of others. In this condition, seeing becomes detached from understanding, and visibility risks replacing sensibility.

The implications for health education are both urgent and far-reaching. Training processes that remain indifferent to these dynamics risk reproducing aesthetic biases and weakening the ethical foundations of care. It becomes necessary to rethink curricula in ways that explicitly address the influence of digital culture, fostering critical awareness of visual norms and their effects on professional perception. Equally important is the incorporation of aesthetic education as a formative axis, capable of cultivating attentiveness, empathy, and a renewed sensitivity to the lived body.

In a time when images circulate faster than experiences can be integrated, reclaiming the depth of perception becomes an ethical task. To educate the gaze is, ultimately, to restore the possibility of encountering the other not as an image to be judged, but as a life to be understood.

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