

WHEN ESTHETICS MEET ETHICS: A MODERN ORTHODONTIC DILEMMA

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ABSTRACT

Esthetic orthodontics is that branch of orthodontic practice primarily concerned with improving facial and dental aesthetics — has grown rapidly in recent years, driven by social trends, advances in technology (such as clear aligners, lingual braces, digital VTOs), and patient demand for “perfect smiles.” However, this growth has unveiled a number of ethical dilemmas that challenge the traditional remit of orthodontics, which historically emphasised function, health, and occlusal stability. In this article we explore the major ethical issues arising in esthetic orthodontics, structured around the four-core biomedical-ethical principles of autonomy, beneficence, non-maleficence and justice. We examine patient demands and informed consent, the risk of overtreatment or purely cosmetic treatment, marketing and commercial pressures, supervision of new technologies, timing and indication of treatment especially in children and adolescents and issues of social justice and access. We also reflect on the role of the orthodontic practitioner in navigating between patient desires, professional responsibility, and business imperatives. Finally, we propose a framework for ethical decision-making in esthetic orthodontics and suggest areas where professional guidelines, education and research need to develop further

Keywords: Esthetics, Orthodontics, Ethics, Aligners, Invisible

INTRODUCTION

In recent decades, orthodontics has shifted from being perceived primarily as a treatment of malocclusion and functional problems to one that increasingly incorporates esthetic concerns, straightening teeth, improving smile appearance, optimising facial profile, and meeting patient demands for “invisible” or rapid treatments. The rise of clear aligner systems, lingual braces, accelerated orthodontics, and digital simulation of outcomes has further emphasised the esthetic dimension of treatment. At the same time, social media, celebrity culture and the “Instagram smile” phenomenon have raised patient expectations and changed the doctor–patient dynamic.

While this evolution brings opportunities, it also brings ethical complexity. Orthodontists must still honour the ethical obligations of the profession: to act in the patient's best interests, avoid harm, respect patient autonomy, and ensure fairness. Yet the elective nature of many esthetic interventions, the influence of commercial marketing, and the variability of long-term outcomes introduce dilemmas. Authors have noted that “those practising orthodontics can frequently be confronted by ethical dilemmas... the elective nature of much orthodontic treatment increases the occurrence of these ethical conundrums.”

In this article we explore the key ethical dilemmas specific to esthetic orthodontics, analyse them through ethical

frameworks, and propose guiding considerations for practitioners¹.

ETHICAL PRINCIPLES AND ESTHETIC ORTHODONTICS

Ethical decision-making in healthcare is often anchored to four major principles: autonomy (respecting patient's choice), beneficence (doing good), non-maleficence (avoiding harm) and justice (fairness in distribution). In esthetic orthodontics each principle can be challenged²:

- **Autonomy:** Patients (or their guardians) have a right to choose treatments, but true autonomy entails that the choice is informed, voluntary and free from undue influence (including marketing hype).
- **Beneficence:** The orthodontist should act to benefit the patient not just cosmetically, but in terms of oral health, function, stability and quality of life.
- **Non-maleficence:** Treatments should not harm the patient, overzealous tooth movement, enamel reduction, relapse, root resorption, periodontal compromise, or psychological harm from unmet expectations are potential threats.
- **Justice:** Access to care and fair use of resources demand that esthetic treatments do not exacerbate health inequalities, nor divert professional duty from necessary functional treatment.

These principles provide a lens through which individual dilemmas may be examined.

KEY ETHICAL DILEMMAS IN ESTHETIC ORTHODONTICS

1. Patient Demand for Purely Cosmetic Treatment vs Professional Judgment

One of the most common dilemmas arises when a patient requests treatment purely for cosmetic reasons—for example, closing a minor diastema before a wedding, or aligning mildly-crooked anterior teeth for a better smile—even when the orthodontist judges that the treatment may not benefit the patient's long-term oral health functional outcomes, or may increase risk of relapse or compromise. The challenge is balancing respect for the patient's wishes (autonomy) with the practitioner's professional responsibility (beneficence/non-maleficence).

For instance, early intervention purely for cosmetic gain (rather than functional improvement) may subject a patient often a child or adolescent to treatment with weak justification, and may lead to re-treatment or complications later. The orthodontist must ensure that the patient (or guardian) understands the limitations, risks and long-term implications. Evidence shows that timing of orthodontic treatment is itself an ethical issue.

2. Overtreatment, Commercial Pressures and Marketing

Esthetic orthodontics is often marketed as being faster, easier, more comfortable, and more “invisible”. This creates commercial pressures. Patients may be attracted by social media images of perfect smiles and promise of short treatment time, but these may not always correspond to sound clinical indications. A recent systematic review in aesthetic dentistry found strong ethical concerns around marketing practices and overtreatment “unnecessary procedures are performed to satisfy commercial pressures and idealised beauty standards.”

In orthodontics, this may manifest in the over-promotion of aligner solutions, the suggestion that every malocclusion can be corrected in 12 weeks, or excessive enamel stripping/ extractions for esthetic aims without full disclosure of risk or needed retention. The ethical issue is that patient welfare may become secondary to business interests, thus conflicting with beneficence and non-maleficence. The dentist-patient relationship must prioritise patient benefit rather than

commodification of care³.

3. Informed Consent and Patient Expectations

In esthetic treatments, managing expectations is crucial. Patients may assume “perfect smile” outcomes, minimal discomfort, zero relapse risk; if the orthodontist does not clearly explain realistic outcomes, limitations (e.g., retention requirements, relapse risk, biological constraints), complications (root resorption, periodontal issues) then this undermines autonomy and potentially leads to non-maleficence. The therapist has an obligation to provide full and balanced information about risks, benefits, alternatives (including “no treatment” or simpler approaches). Studies on orthodontic ethics repeatedly emphasise the need for full disclosure and informed decision-making.

4. Technological Innovation and Ethical Oversight

The introduction of new esthetic orthodontic technologies, clear aligner systems, digital treatment simulation, 3-D printing, accelerated biomechanics—raises ethical issues. While innovation is positive, the practitioner must ensure that new modalities are evidence-based, indicated, and that patient selection and supervision are appropriate. The risk is that marketing hype may outpace evidence. When the pursuit of esthetics dominates, there is a danger that functional or biological stability is compromised. The clinician must be vigilant: the use of new devices must align with clinical need and patient safety, not just esthetic demand.

5. Treatment of Children/Adolescents and Consent

Orthodontics, and especially esthetic interventions, are commonly delivered to children and adolescents. When esthetic motives dominate (e.g., orthodontic treatment to align teeth because of peer appearance concerns) ethical issues multiply: the minor may have limited capacity to appreciate long term consequences; the parent may push esthetic treatment; the practitioner must assess whether early cosmetic treatment is justified in terms of function, stability and patient welfare. The obligation is strongest: the practitioner must prioritise the child's best interests, not simply respond to parental or commercial demand. This issue was long recognised in traditional orthodontic ethics literature.

6. Equity, Access and Justice

Esthetic orthodontic treatments are often more expensive, marketed more intensively, and may become luxury services.

Meanwhile, individuals with genuine functional malocclusion but less capacity to pay may be sidelined. Justice demands that orthodontic care not become a two-tier system where esthetic patients get priority. Practitioners must consider how their practice balances cosmetic demand with responsibility to broader patient populations. In addition, marketing and allocation of resources to heavy esthetic caseloads may reduce time or capacity to treat those with health-oriented orthodontic need⁴.

7. Social Media, Privacy, Images and Professional Identity

Another emerging dilemma, particularly relevant to esthetic orthodontics, is the use of patient photographs on social media for marketing: before/after images, treatment promotions, influencer-style posts. Ethical concerns include proper patient consent for image use; depiction of outcomes in a way that may skew expectations; potential psychological impact of idealised images; confidentiality and data protection; and professional representation. A recent article pointed out the “ethical dilemma of orthodontic photographs on social media ... issues around consent, privacy, duties of care, and data vulnerability”

PRACTICAL SCENARIOS AND ETHICAL DECISION-MAKING

To illustrate, consider some common scenarios:

Scenario A: A 25-year-old adult requests rapid aligner treatment solely to straighten mildly-crowded front teeth before a job interview. The orthodontist estimates that full functional alignment would take 18 months with fixed appliances, but aligners might achieve the front six teeth alignment in six months though with increased relapse risk and higher retention burden.

- **Ethical questions:** Is it acceptable to offer the shorter cosmetic route if the patient fully understands the trade-offs (relapse risk, retention)? Does the practitioner's judgment of sub-optimal stability make it unethical?
- **Considerations:** Ensure full informed consent including explanation of risks, costs, retention; consider whether shorter plan may jeopardise stability; document discussion; monitor retention closely.

Scenario B: A 13-year-old teenager with mild crowding and no functional issues wants “invisible braces” because peers have them and social media shows perfect smiles. Parent is keen. The orthodontist knows that early cosmetic treatment may mean longer treatment overall, higher cost, and risk of

relapse if retention fails.

- **Ethical questions:** Are we intervening prematurely for cosmetic reasons? Is the adolescent able to assent meaningfully? Are we honouring best interests of the patient or social pressures?
- **Considerations:** Evaluate functional need; discuss with child and parent the realistic outcome, retention responsibilities, cost; possibly suggest waiting until growth is a bit further and treatment easier; emphasise retention importance.

Scenario C: A practice markets “six-month smile” clear aligner therapy to adults, emphasising quick aesthetic results. Some patients are being offered aligners although their malocclusions might better respond to fixed appliances or combined surgical-orthodontic care. Evidence of relapse and compromise of function is higher in such cases.

- **Ethical questions:** Is marketing realistic and evidence-based? Are patients being misled? Are compromises being made for commercial gain?
- **Considerations:** Ensure truthful marketing; ensure patients are informed of limitations; avoid offering aligners simply because demand exists if not clinically indicated; align treatment plan with best standard of care.

In each scenario the clinician should walk through the ethical principles: Did the patient give truly informed consent? Is the treatment in the patient's best interest? Could harm result from a shorter cosmetic plan? Is the patient being unduly influenced by marketing or peer pressure? Are retention demands and relapse risks clearly communicated? Is the cost justified and fair relative to benefit?

A FRAMEWORK FOR ETHICAL PRACTICE IN ESTHETIC ORTHODONTICS

Here is a proposed framework for practitioners to apply when confronted with esthetic orthodontic dilemmas⁵:

1. Clinical Indication Assessment

- Evaluate whether the primary need is functional/health vs purely cosmetic.
- Determine risks, benefits, alternatives, stability prognosis.

2. Patient Motivation & Expectation Exploration

- Ask: Why does the patient want the treatment? Are expectations realistic?
 - Appreciate social/psychological drivers (peer, media, job, dating).

- Assess capacity (especially minors) to understand long-term implications.

3. Informed Consent & Communication

- Clearly explain: nature of treatment, expected outcomes, risks (relapse, retention, root resorption, periodontal compromise), alternatives (including no treatment or simpler treatment).
- Document discussions and ensure patient/guardian truly understands.
- Use language appropriate for patient's age and comprehension.

4. Treatment Planning Aligned with Professional Responsibility

- Offer treatment that prioritises patient welfare over marketing advantage.
- If a faster/esthetic-only route is chosen, ensure it does not compromise long-term function or integrity.
- Avoid offering treatments when indication is weak purely for cosmetic or commercial reasons.

5. Retention, Maintenance & Follow-Up

- Emphasise retention obligations and costs, especially for esthetic cases with high relapse risk.
- Plan long-term follow-up and reinforce the necessity of compliance.

6. Marketing & Professional Integrity

- Ensure marketing materials are accurate, evidence-based, not misleading.
- Use patient photographs only with proper consent and safeguard privacy.
- Avoid portraying unrealistic before-after promises or creating undue pressure.

7. Equity and Fair Access Consideration

- Be mindful of resource allocation and fairness in practice: do not let esthetic demand subvert care of patients with functional treatment needs.
- Consider cost transparency and alternative options for patients with limited means.

8. Reflective Practice and Continuing Ethics Education

- Stay abreast of evidence regarding new esthetic orthodontic technologies and their indications.
- Reflect on one's practice: Are you leaning too heavily toward cosmetic volume and marketing?

Are you adhering to your professional oath?

- Seek peer discussion, ethics committees, mentorship for difficult cases.

DISCUSSION: CHALLENGES AND RESEARCH GAPS

Several broader issues complicate ethical decision-making in esthetic orthodontics:

- **Evidence Gap vs Marketing Claims:** Many new esthetic interventions are adopted rapidly in practice with limited long-term evidence regarding stability, relapse risk, and periodontal/biologic compromise. Orthodontists must navigate marketing claims vs evidence.
- **Changing Social Norms:** The societal emphasis on smile esthetics, driven by social media, creates patient demand that may not align with clinical best interests. This drives tension between patient autonomy (they want the treatment) and professional responsibility (is it justified?).
- **Retention Burden:** Esthetic treatments often place heavy reliance on retention and patient compliance; if retention fails, relapse may occur. This raises questions about long-term commitment and whether the patient fully appreciates that.
- **Minor Patients and Consent:** Adolescents may demand esthetic treatment even when functional need is low, primarily for social reasons. Clinicians must assess maturity, motivation and capacity to consent/assent, and avoid 'selling' cosmetic treatment without addressing best interests.
- **Access and Social Justice:** As esthetic orthodontics becomes more mainstream and commercialised, there is a risk that orthodontics becomes stratified: those paying for cosmetic treatment get priority, while those with functional need may be underserved.
- **Professional Identity and Business Pressures:** Orthodontic practices are increasingly business entities. The pressure to market, expand service lines, adopt "trendy" technologies may push practitioners toward volume cosmetic cases, potentially eroding professional ethics unless actively managed.
- **Image Sharing and Privacy:** The use of "smile-makeover" photographs on Instagram, patient selfies, in marketing materials raises issues of consent, privacy, realistic expectation management, and professional integrity³.

- **Global and Cultural Differences:** What counts as “esthetic need” may vary culturally, and economic constraints vary globally. Ethical frameworks must consider local context and patient socioeconomic status.

Research gaps remain, such as long-term outcomes of esthetic-only treatment plans, relapse rates in adult cosmetic orthodontics, the psychological impact of marketing-driven orthodontic demand, and best practices for ethical marketing in orthodontics.

RECOMMENDATIONS FOR PRACTICE AND EDUCATION

To foster ethical esthetic orthodontic practice, the following are recommended:

- **Education:** Include ethics, marketing, patient-motivation assessment, retention burden and social influences in undergraduate and postgraduate orthodontic curricula.
- **Guidelines and Codes:** National and international orthodontic associations should expand or update guidelines addressing esthetic orthodontics: marketing ethics, patient-photograph use, consent for cosmetic treatment, retention plans, realistic outcome communication.
- **Audit and Reflection:** Practitioners should regularly audit their case-mix: proportion of purely esthetic vs functional cases, retreatment rates, retention failure, patient satisfaction vs objective outcomes. Reflection helps identify drift toward volume cosmetic practice.
- **Informed Consent Tools:** Develop standardised consent forms and patient information leaflets specific to esthetic orthodontic treatments, emphasising risks, retention obligations, relapse probabilities, cost, alternatives.
- **Marketing Oversight:** Ensure practice marketing is transparent, evidence-based, not overpromising, and highlights retention commitments and possible limitations.
- **Patient-Centred Dialogue:** In consultations, explore patient motivations deeply: “Why do you want treatment? What are your expectations? Are you aware of the effort required?” This helps align treatment with genuine patient welfare rather than social pressure.
- **Access Awareness:** Practices should remain mindful of patients with functional need and ensure resources are

not wholly consumed by high-margin cosmetic treatments.

- **Research and Evidence-Building:** Encourage clinicians to participate in outcome studies of esthetic orthodontic treatments, long-term retention and stability, patient satisfaction and psychosocial outcomes, to strengthen the evidence base and improve decision-making.

CONCLUSION

Esthetic orthodontics embodies a confluence of clinical biology, patient desire, social influence and commercial enterprise. While the aim of improving smiles is laudable, the profession must remain vigilant to the ethical dilemmas that arise when esthetic priorities override functional health, when marketing overshadows clinical judgment, when patient autonomy is compromised by unrealistic promises, or when treatment is offered primarily for cosmetic gain rather than oral welfare. By grounding decision-making in the ethical principles of autonomy, beneficence, non-maleficence and justice and by adopting a structured framework for assessment, communication, retention and marketing orthodontists can navigate these dilemmas with integrity. Education, evidence-based practice, transparent consent, and reflective professionalism are key. As esthetic orthodontics continues to evolve, the profession has an opportunity to lead in both aesthetic and ethical excellence ensuring that beautiful smiles are delivered not at the cost of long-term health or professional ethics, but in concert with them.

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