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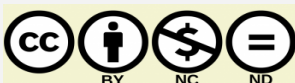
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Ethics In Orthodontic Clinical Practice: (A review article)

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Abstract:

Dental ethics mean the obligations and moral responsibilities towards the patients, professional peers, and society as large. In Orthodontic Clinical Practice all information should be given to the patients before orthodontic treatment like the risk and benefit of therapy and the treatment duration also all the patients have the right to choose and determine the type of orthodontic therapy by application of American dental association Principles of Ethics (ADA Code), all these elements involved under the term of orthodontic ethics. This review article elucidates the ethical dilemmas encountered by orthodontists in their regular clinical practice, with the aim of providing optimal treatment to their patients.

Keywords Ethics, Orthodontic Ethics, Ethical practice, Dentistry.

Introduction:

Ethics encompasses medical responsibilities by urging individuals to contemplate and reassess their behaviours, assessments, and rationales. Therapeutic application involves the use of overarching ethical concepts and regulations to address therapeutic methods, as well as medical and research challenges. Ethical practice should be followed by all professions (Musschenga, 2005).

The rules of medical ethics must be followed when dentistry transitions from a shadow profession to a recognized specialty. Additionally, a broader societal view of dentistry has resulted from the increased recognition of the critical relationship between dental health and general health (Kultgen, 1988).

The majority of proficient and morally upright dentists comprehend their customers' attainable visual objectives. Numerous individuals have undergone further training and possess a strong desire and proficiency in enhancing patients' dental appearance by the use of practical, physiologically sound, minimally harmful, and ethically acceptable

techniques, if allowed. The ethical resolution of artistic challenges requires thorough individual consultations and meticulous evaluation of all available options, including those derived from other domains or skill sets (Kelleher 2021). The ethical challenges that dentists face now are more numerous and complicated than they were in the past. The dentist is still one of the most trusted professionals (Rest and Narvaes, 1994). The continued existence of orthodontics as a dental specialty relies on its dedication to innovation and its capacity to adjust to evolving patient requirements, the ambitions of new providers, and the challenges faced by experienced practitioners (Ackerman, 2013). While ethical considerations are inherent in all forms of medical and dental treatment, orthodontic therapies have received less attention in terms of specialized ethical investigation. Orthodontists often confront ethical quandaries across several domains (Mouradian, 1999). Prominent figures in the field of orthodontics have reached a consensus that a significant number of patients, particularly those with intricate conditions requiring multidisciplinary treatment, may not achieve optimal outcomes (Kokich, 2011). A patient presenting with an anterior dental cross bite on a solitary tooth seeks alleviation, prompting the orthodontist to accurately evaluate and appropriately address the condition. A rudimentary dental cross bite treatment is effective, and the patient is pleased. An ethical endeavor aids the patient while ensuring their well-being is not compromised. Under different conditions, this fundamental situation becomes challenging. Failure to address the patient's cross bite may result in its exacerbation over time as a consequence of early contacts. Stomatognathic system, encompassing teeth, supporting tissues, neuromuscular system, and

temporomandibular joints, may be impacted by occlusal interferences, particularly in young individuals. Moreover, the therapeutic approach may exhibit complexity and lack efficacy (Brandini et al., 2012). Unsatisfied patients seek a different specialist who, due to intense and unjust rivalry, aims to attract more clients and revenue, while undermining their "colleague". Globalisation has further facilitated the expansion of information accessibility, hence enhancing citizens' awareness of their rights (Paranhos, 2012). In order to enhance ethical decision-making in a specific situation, it is advisable to prioritise evidence-based ethics above subjective ethical judgements (Gorea, 2015). The review article elucidates the ethical dilemmas encountered by orthodontists in their routine clinical practice, with the aim of providing optimal treatment to their patients.

American dental association Principles of Ethics (ADA Code):

- **Patient autonomy ("self-governance"):** This principle encapsulates the notion that healthcare practitioners have the responsibility of providing patient care in accordance with the patient's preferences, while adhering to established treatment protocols, and safeguarding the patient's privacy.

Nonmaleficence ("do no harm"): This principle articulates the notion that experts are obligated to safeguard the patient from any potential damage, as in sliding mechanics, which is always used in orthodontic treatment, one of its disadvantages is the friction that occurs between the wire and the bracket, which in turn reduces the required orthodontic treatment (Kamel and Taha, 2023).

Also, the use of topical gel containing high levels of fluoride in conjunction with titanium based orthodontic wires it may lead to adverse effects that may result in prolonging the period of orthodontic treatment (Al Sharifi and Alhuwaizi, 2023).

- **Beneficence (“do good”):** This principle encapsulates the notion that professionals have a responsibility to operate in the best interest of others, and the fundamental job of a dentist is to provide service to both the patient and the general public.
- **Justice (“fairness”):** This principle posits the notion that the dentistry profession need to proactively engage with societal allies in order to undertake targeted initiatives aimed at enhancing universal access to healthcare services.
- **Vercity (“truthfulness”):** In accordance with this concept, the dentist is obligated to maintain the position of trust that is inherent in the connection between the dentist and the patient, engage in honest and deceptive communication, and preserve intellectual integrity (www.ada.org/about-the-ada/principles-of-ethics-code, 2017).

Ethics in Clinical Practice:

- **Inform Before Perform:** Upon a patient's decision to undergo orthodontic treatment, it is imperative to provide them with comprehensive information on the whole treatment process, including retention. Profile and frontal improvement after orthodontic treatment may be shown using handheld models, patient casts, or the latest digital software. The pre-treatment period is of utmost importance as it facilitates patient motivation and fosters confidence in the orthodontist.
- **Right to choose:** The determination of orthodontic therapy is not only within the purview of the orthodontist. Healthcare professionals are obligated to uphold the moral and legal authority of patients, including parents in the case of paediatric patients (Jerrold,1998) .
- **Benefit/Risk ratio:** In order to choose the most suitable intervention, the orthodontist responsible for therapy must first ascertain the treatment needs of the patient. Every orthodontic technique is accompanied with inherent dangers and limitations. Rather than refraining from therapy, it is advisable to provide patients with other treatment options that have a reduced risk profile, but may enhance their oral function, beauty, and overall quality of life (Paranhos .2011).
- **Course of treatment duration:** The length of orthodontic treatment varies depending on the degree of malocclusion (Mouradian *et al.*,1999) . Prior to commencing therapy, it is essential to inform patients about the duration of the treatment, since extraction cases often need more time to complete compared to non-extraction patients. Irregular or missing appointments, malfunctioning appliances, or debonded brackets have the potential to extend the expected treatment duration of an orthodontist (Silva *et al.*,2009) .
- **Retention Phase:** In order to ensure enduring stability, it is essential that the case be finished with optimal occlusion, devoid of premature occlusal contacts, prior to the removal of the orthodontic device. To avoid recurrence, it is important to offer prompt instructions on how to use retainers following active treatment. The maintenance of results necessitates active involvement of patients in the use of retainers (Pratt *et al.*,2011).
- **Informed consent:** Contemporary dental ethics places great importance on informed consent, which entails gaining permission to meet certain criteria. It implies that the person asking permission must possess sound reasoning, a comprehensive understanding of the facts, a reasonable understanding of the available choices, and an awareness of the consequences and effects (Jacob,2014).

As per the guidelines set forth by the American Association of Orthodontists, the process of obtaining informed consent should encompass various aspects such as treatment outcomes and duration, the presence and intensity of pain experienced, the potential for relapse, procedures involving extractions and orthognathic surgery, decalcification and dental caries, root resorption, periodontal diseases, temporomandibular disorders, impacted and ankylosed teeth, allergies, and the utilisation of temporary anchorage devices (Brrown, <https://www.wasatchorthodontics.com>).

It is important to educate the patient in their local language and get informed consent for the problem list, investigative methods, and treatment plan (Anusuya and Nagar,2016).

keys to be considered to maintain orthodontics:

Key 1: Applied craniofacial biology must become dentofacial enhancement.

Orthodontics must move from applied craniofacial biology with questionable utility in many cases to a socio-economic realm with other enhancement services accepted by plastic surgeons, dermatologists, and mental health professionals (Ackerman *et al.*,2004).

Key 2: There is a need for a revision in the classification of malocclusion to include dentofacial characteristics that are indicative of good health (Ackerman *et al.*,2007). Due to the diverse variety of orthodontic disorders, including both typical biological variations and developmental anomalies, the significance of occlusion has diminished within the discipline. Orthodontics, as a subfield of dentistry, focuses on the examination of variations in dentofacial characteristics that have the potential to impact an individual's holistic well-being (Ackerman,2007).

Key 3: The orthodontic residency duration should be reduced from 3 years to 2 years. There is a lack of empirical evidence supporting the notion that orthodontic residency programmes beyond a period of 24 months provide graduates with higher levels of competence (Lindauer,2008).

Key 4: The promotion of debt should be transformed into a demand for fiscal prudence. Encouraging students to accumulate substantial amounts of debt in their pursuit of becoming orthodontists is seen entirely reckless and immoral within our field (Lindauer,2013).

Key 5: Propose a modification to consumer marketing financing in order to develop scholarships. There is no inherent animosity between children and general dentists. According to the Commission on Dental Accreditation, both undergraduate and post-doctoral paediatric dental residency courses are required to include both didactic and clinical instruction in orthodontics. The portrayal of non-orthodontists as "under" trained is not in accordance with the ethical and acknowledged standards of the dentistry profession, since these individuals play a crucial role in providing essential orthodontic treatments to patients (Ackerman,2010).

Medicolegal Concerns:

Following the acquisition of express consent, the orthodontist is required to get radiographs and images of the patient before to commencing treatment. These data aid in the identification of disorders, the optimisation of therapeutic mechanics for best results, the comparison of treatment outcomes, and the acquisition of a second opinion. It is important to maintain patients' records even after orthodontic treatment. The use of patient data, particularly extraoral photographs, for the purpose of distribution and research is contingent upon obtaining written agreement (Brrown, <https://www.wasatchorthodontics.com>). It is essential to save the patient's record in the event that they are referred to another orthodontist. The orthodontist responsible for recommendation requires a

comprehensive patient history, treatment plan, and progress report. Ensuring the smooth execution of treatment between the orthodontist and patient is crucial. Both parties must provide clear and thorough permission. If the patient wishes to terminate therapy due to personal reasons, the orthodontist should provide a clear explanation of the potential hazards associated with extraction and the possibility of recurrence if treatment is not completed. Obtain written authorization before to uninstalling the equipment (Paranhos,,2012).

Relationship with the patients:

The doctor-patient relationship serves as the foundation of clinical practice. The establishment of a relationship is contingent upon the mutual permission of the doctor and patient. As to the International Principles of Dental Ethics, the primary focus is on prioritizing the needs of patients. The traditional doctor-patient dynamic, characterized by dentists making assessments and patients providing permission, has almost vanished. Autonomy is uncertain until the patient is unable or unwilling to make decisions. Given the rejection of Paternalism, physicians are now required to take into account patient values, preferences, and actively include patients in the decision-making process (Anusuya and Nagar,2016) .

Sterilization Protocols:

It is essential for dental clinics to adhere to sterilization regulations. Every patient requires orthodontic equipment, attachments, and wires that are clean and sanitary. PPE should be used by the working orthodontist, and it is essential to maintain a clean workplace (Mithun ,2018).

Conclusion:

Contemporary ethics are of utmost importance. It is important for every dental student to have knowledge about ethics. As dentists, it is imperative that we comprehend our responsibilities. Orthodontists are ethically obligated to provide services to patients irrespective of their finances. It is essential for orthodontists to acknowledge that our goal is to enhance the quality of life rather than treat a condition. Having knowledge about orthodontic communities in other nations may assist orthodontic institutions in effectively managing their political and administrative matters.

Conflicts of Interest:

The authors have no conflicts of interest.

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