



# Consumer-Driven Elective Healthcare: The Ethical Case for Doctor-Directed at Home Orthodontic Aligner Treatment

By Dr. Marc Ackerman

Over 60 percent (1,972) of the counties in the United States do not have an orthodontist's office. This has resulted in a large percentage of the population who could benefit from orthodontic treatment not receiving it. A study estimated that 98 percent of patients who do have access to orthodontic care are being treated for a constellation of clinical findings representative of normal human variation. The remaining 2 percent of patients in orthodontic treatment have what has been termed "a seriously handicapping" malocclusion and they should be considered outliers. However, all public orthodontic policy and most clinical decision-making is based on the 2 rather than the 98 percent. When funded by public and some private insurers, access to orthodontic care is rationed in terms of medical necessity. When self-funded or funded by private insurers, access to orthodontic care is determined by the free market which is to say that those who can afford it will receive treatment.

The access to care dilemma in orthodontics has been perpetuated by the orthodontic specialty embracing a medicalized model. Many contemporary orthodontists still believe that having crooked teeth is a disease. In this medicalized model; people suffer from it, its causes are physical, it must be treated by a doctor, its treatment should result in a cure or relief of symptoms, and society at large must acknowledge that if untreated it will negatively influence the health of its population. In this orthodontic paradigm, a person undergoing orthodontic treatment has been considered a patient. The standard cure for crooked teeth is a complete

mouth overhaul, changing the positions of all the upper and lower teeth within their supporting structures. It is an all or none proposition. Any treatment that focuses on changing just the front teeth also known as the social six has been considered inadequate and wholly inappropriate by most orthodontists. Evidence suggests that the medical model of orthodontics is built on spurious reasoning and its arguments fall apart under modest scrutiny. In contrast to the medical model, the enhancement orthodontic model asserts that tooth straightening is by and large an elective, appearance enhancing service wherein consumers elect to go beyond normal, seeking a detectable improvement in how they look.

With the emergence of new technology that enables digitization of formerly analog processes, tooth straightening with clear aligners is now available to the masses via a direct to consumer, doctor-directed teledentistry platform. If the consumer chooses, they can now bypass the traditional model of physically visiting the orthodontist for evaluation, digitally submit images of their teeth online to a doctor through a vendor's smartphone application and get an assessment by a virtual orthodontist. If approved for the service the consumer can then purchase the tooth aligner system, have it shipped to their door and receive periodic monitoring by the teleorthodontist. In terms of cost, this service is approximately ¼ the price of in-office aligner treatment and the burden of office visits is eliminated. As of writing this paper, thousands of consumers who were heretofore priced out and/or

geographically out of the market have gained access to tooth straightening.

The orthodontic community has reacted negatively to this teleorthodontic delivery model and in typical guild fashion have attempted to protect the status quo by colluding with dental boards in an attempt to thwart it. The accusation leveled against companies providing this teledental platform and the network of teleorthodontists is that a true doctor-patient relationship cannot be established using a store and forward, asynchronous process. As well, the virtual orthodontists have been accused of acting in an ethically impermissible way by not seeing the consumer face to face. The focus of this essay is to discuss how the teleorthodontist-consumer relationship still adheres to the original bioethical framework governing the physical orthodontist-patient relationship.

Consumers much like patients in the medical model have the right to act intentionally, with understanding, and without controlling influences. They are free to make autonomous choices with regards to self. However, it is incumbent on the doctor to provide them with enough information about the risk/benefits of any given choice in order to make an informed decision. As it stands today, the teleorthodontist in the model above employs the same interactive informed consent protocol with the consumer in comparison to what the traditional orthodontist would use in their physical office. Contrary to the belief of their detractors, these doctors are very active in treatment and do not merely dispense aligners hiding behind the principle of caveat emptor.

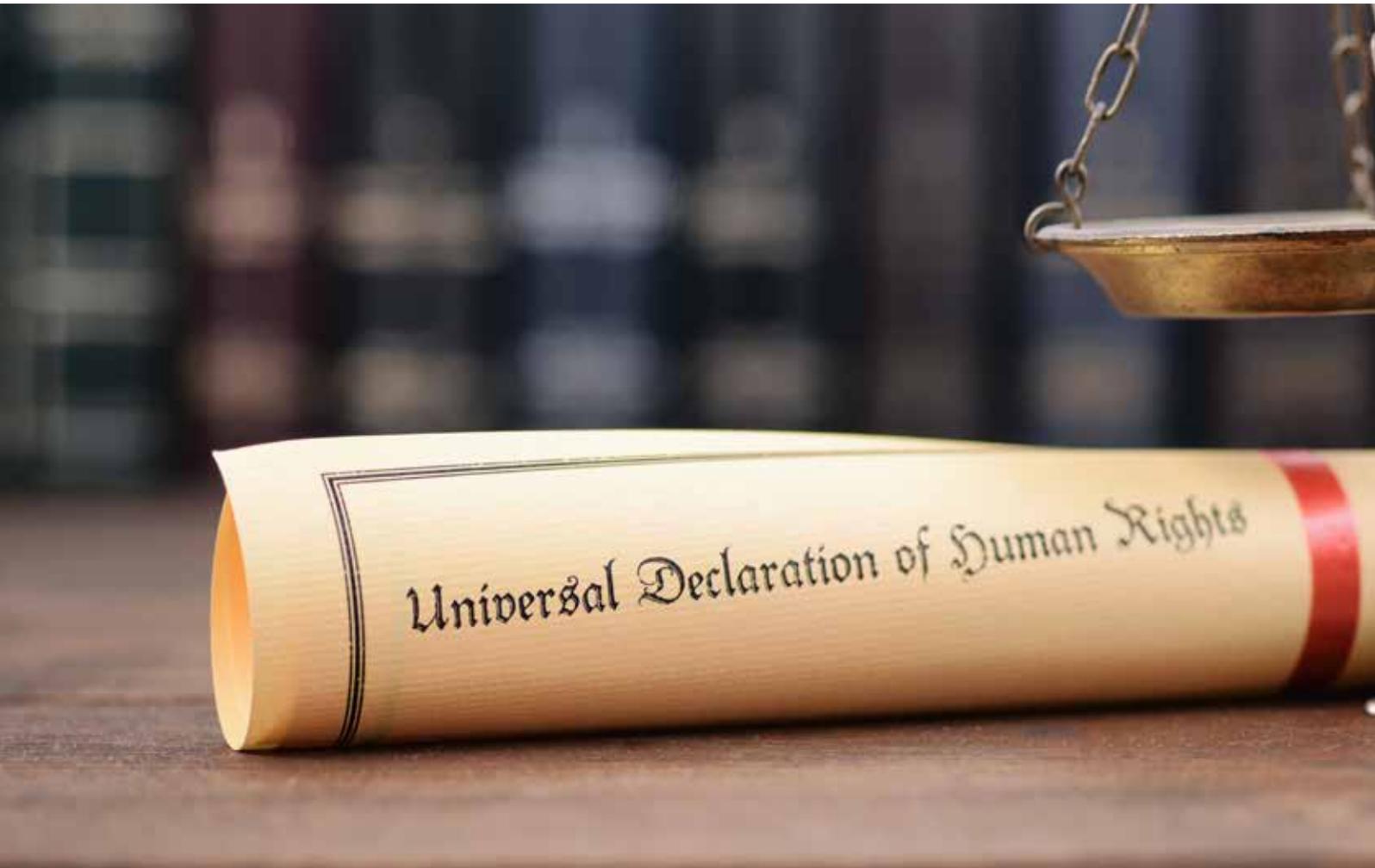
It is the duty of the doctor to act in a way that benefits the consumer. The doctor is obligated to prevent and remove harms, and weigh/balance the possible benefits against possible risks of an action. There are situations when an autonomous choice of the consumer may conflict with the doctor's duty of beneficence. As long as the consumer meets the criteria for making an autonomous choice, the doctor is compelled to respect the patient's decision even though they may try and convince the consumer otherwise. The teleorthodontist must exercise professional judgement when it comes to beneficence. Although it might seem at odds with good business practice, the teleorthodontist has been given all of the decision-making power by the companies that provide the teledental platform. If the teleorthodontist is not comfortable approving a consumer for the tooth straightening service it is their decision alone. So as long as the individual teleorthodontist practices ethically, they will meet the same obligation as those

doctors practicing in a physical locale. We know that not every doctor will practice ethically, however there is no evidence to suggest that those who choose to practice virtually have a greater tendency toward unethical practice.

All interventions aimed at the enhancement of human appearance have the potential to cause harm. The doctor's role is to make sure that the harm is not disproportionate to the benefits of any intervention. Limited tooth straightening with clear plastic aligners does not present significant harm to the consumer. Although the examination of the consumer does not include physical contact, the virtual doctor can glean enough clinical information from the digital data set and the dental history to make an accurate decision regarding the potential for any harm. If there is any doubt in the mind of the virtual doctor, they can refer the consumer to a dentist's office to confirm their suitability for tooth straightening.

Justice in traditional healthcare is defined as fairness in the allocation of scarce resources.

Rawls' difference principle discusses inequalities in the distribution of wealth and income. The difference principle requires that any economic inequalities in society be to the greatest advantage of those who are advantaged least. In the medical model of orthodontics, distributive justice is of paramount importance for the 2 percent of patients with serious handicap. As far as increasing access to care for the other 98 percent of patients, third party payers do not view orthodontics as an essential health benefit and find arguments to the contrary tenuous. In the enhancement orthodontic model, resources are allocated by the free market which is regulated by those who can afford to pay. With teleorthodontic care currently offered at a lower price and with a lower burden placed on the consumer, it is having a far greater impact on consumer access to tooth straightening.



Universal Declaration of Human Rights

Teleorthodontics is in its infancy. As technology improves and processes change, new bioethical questions will arise and need to be discussed in the future. Version 1.0 of the teleorthodontist-consumer relationship conforms to the same bioethical principles that currently govern the physical orthodontist-patient relationship. The nascent teleorthodontic mode of practice has the potential to exponentially increase access to care for those consumers who have previously been underserved. 📌

#### REFERENCES

- U.S. Department of Health and Human Services Centers for Medicare and Medicaid Services. *National Plan and Provider Enumeration System (NPPES)*. Research report, 2017. Washington, D.C.
- Proffit WR, Fields H, and Moray L. Prevalence of malocclusion and orthodontic treatment need in the United States: estimates from the NHANES III survey. *Int J Adult Orthodon Orthognath Surg* 1998;13:97-106.
- National Research Council. *Seriously Handicapping Orthodontic Conditions*. Washington, D.C.: The National Academies Press 1976.
- Angle EH. *Treatment of malocclusion of the teeth*. Philadelphia, PA: The S.S. White Dental Manufacturing Company 1907.
- Proffit WR, Fields Jr HW. *Contemporary Orthodontics*, 5th ed. St. Louis, MO: Mosby 2012.
- Brace CL. Occlusion to the anthropological eye. In: McNamara J (eds) *The Biology of Occlusal Development*. Ann Arbor, MI: The University of Michigan Press 1977:179-209.
- Ackerman MB. *Enhancement orthodontics: Theory and practice*. Ames, IA: Blackwell Publishing, 2007.
- Ackerman MB. Selling orthodontic need: Innocent business decision or guilty pleasure. *J Med Ethics* 2010;36:275-78.
- Kravitz N, Burris B, Butler D and Dabney W. Teledentistry, do-it-yourself orthodontics, and remote treatment monitoring. *J Clin Orthod* 2016;50:718-726.
- Shukla A. *From 300 million braces to 3 billion smiles. Introducing the exponential orthodontist*, <https://medium.com/@aalokyshukla/from-300-million-braces-to-3-billion-smiles-introducing-the-exponential-orthodontist-614f28886104> (accessed 15 December 2017)
- American Association of Orthodontists. Consumer alert: Risks involved with “Do it yourself” teeth straightening products, <http://res.cloudinary.com/dorhu9mrb/image/upload/v1448045671/Buyer-Beware-Press-Release.pdf> (accessed 15 December 2017)
- O’Brien K. Do it yourself orthodontics revisited: Invisalign and SmileDirectClub and others, <http://kevinobrienorthoblog.com/do-it-yourself-orthodontics-revisited-invisalign-and-smile-direct-club/> (accessed 15 December 2017)
- British Orthodontic Society. BOS Statements, <https://www.bos.org.uk/News-and-Events/BOS-Statements/BOS-Statement-Do-it-yourself-braces> (accessed 24 April 2018)
- Vyas K, Hambrick R and Shakir A. A systematic review of the use of telemedicine in plastic and reconstructive surgery and dermatology. *Ann Plast Surg* 2017;50:736-768.
- Rawls J. *A theory of justice*. Cambridge, MA: Harvard University Press 1999.

