



## **An Algorithm of Ethical Approach to The Orthodontic Patient**

***Ligia VAIDA<sup>1</sup>, Gabriela MUTIU<sup>2</sup>, \*Ioan Gheorghe TARA<sup>3</sup>, Florian BODOG<sup>4</sup>***

1. *Dept. of Dentistry, Faculty of Medicine and Pharmacy, University of Oradea, Oradea, Romania*
2. *Dept. of Morphological Sciences, Faculty of Medicine and Pharmacy, University of Oradea, Oradea, Romania*
3. *Dept. of Finance and Accounting, Faculty of Economic Sciences, University of Oradea, Oradea, Romania*
4. *Dept. of Surgical Disciplines, Faculty of Medicine and Pharmacy, University of Oradea, Oradea, Romania*

**\*Corresponding Author:** Email: ioantara@yahoo.com

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### **Dear Editor-in-Chief**

Demands for orthodontic treatment have been an increased trend and, at the same time, orthodontists try to obviate patients' esthetics and dynamic problems (1). In orthodontics, most of the patients are children and adolescents, and the orthodontic treatment usually extends over a period of 2-3 years or even longer, thereby implying supplementary costs. The results of some studies conducted by us regarding the level of stress, anxiety self-esteem in case of orthodontic patients have shown that the latter have a high level of stress, of anxiety as a status and a low level of self-esteem when presenting to orthodontic office and at the initial stage of the orthodontic treatment (2, 3). Starting from these premises, the present paper aims at presenting an algorithm of ethical approach to the orthodontic patient, conceived by us in order to facilitate a doctor-patient relationship in optimal conditions. Thus, we used some verbal and visual techniques in our orthodontic practice in order to diminish the level of stress and anxiety generated by the orthodontic treatment to help patients taking a proper decision concerning their treatment.

The verbal techniques refer to quasi-total coverage of information the patient needs even at the first meetings (before starting treatment) regarding the orthodontic diagnosis, the type of the orthodontic appliance necessary at the beginning and associations of other types of appliances during the treat-

ment, the therapeutic alternatives, details about duration and main stages of the treatment, about the benefits and risks of the treatment, about the risks of interrupting the treatment, as well as regarding the necessity and the role of some cranio-maxillofacial associated surgical interventions (e.g. extractions for orthodontic purposes, frenectomies, orthognathic surgery, orthoimplants insertions), periodontology, otorhinolaryngology, endocrinology etc. Moreover, in case of visual techniques, we associate verbal explanations with visual examples – photos, drawings, digital images. In case of visual techniques, patients will receive concrete information about the type of the appliance, the orthodontist having in his or her office appliances from each category (mobile appliances, mobile or fixed ones applied on typodont), specially designed for this purpose. Furthermore, the patient will be presented images with patients wearing similar appliances, as well as images taken at the beginning and at the end of treatment in case of patients with similar anomaly (2).

In case of children and adolescents we consider that the presence of their parents in the office is appropriate. This idea is also supported by the importance of correct informing the parents/legal tutors, concerning all aspects including those of financials, they being the ones who will sign the informed consent necessary to start the treatment.

We aim at accomplishing the following stages during the first meeting, depending on the patient's willingness to cooperate:

- general clinic examination of the patient, facial examination, endo-oral examination and partial completion of the orthodontic file;
- orthodontic presumptive diagnosis;
- informing the patient and their caregivers about the: type of anomaly they have, the suitable type of the appliance, the duration of the treatment, the main stages of the treatment, the frequency of control and activation meetings, the treatment costs, the necessity of some dental or/and surgical procedures, preliminary or associated to the orthodontic treatment, as well as requesting some ENT, pediatric, endocrinological investigations etc;
- the next stage within this meeting was to obtain the written informed consent, from the patient or legal tutor, as appropriate. When we could not obtain the informed consent during this stage of meeting and the patients requested additional time for making a decision, we postponed the signing of the consent to the next meeting;
- recommendations for miogymnastics in case of patients with oral-facial muscular imbalance, vicious habits, dysfunctions or parafunctions;
- preparing the patient for the next two meetings, when impressions of dentoalveolar arches will be taken;
- complementary examinations will be requested (panoramic X-rays, lateral skull X-rays etc), and also the patient should have a toothbrush and toothpaste on themselves in order to learn the proper brushing technique or just to check it, if the patient has already learnt the brushing techniques in case they participated in a training in this respect provided by a dental service office.

We recommend allotting at least 8-10 minutes exclusively for verbal or visual techniques regarding the treatment.

The second meeting was scheduled within an interval of 3-7 days and occurred differently for each of the three batches of patients. The meeting consisted of the following stages:

- obtaining the written informed consent, if this was not possible during the first meeting;

- completing the anamnesis and the orthodontic file of the patient (the data can be entered and stored electronically);
- interpreting the panoramic radiographies and other complementary or paraclinical examinations required, to the extent in which they can bring additional data for diagnosis;
- assessing the oral hygiene condition associated with a brushing training session;
- checking the feed-back of the patient regarding the miogymnastics exercises indicated in the previous meeting (it also represents a test of appreciating the degree of patient cooperation);
- taking photos;
- taking dental impression.

Based on ethical, moral and legal principles, the informed consent is now a generally and widely accepted aspect of medical practice and all legal jurisdictions presently sustain obtaining the informed consent from patients before any medical treatment (4-6).

Dental impression taking represents, undoubtedly, one of the most difficult stages for the patient before affixing the orthodontic appliances, with possible side effects such as suffocating or vomiting (7). We have used the hypnotic induction technique in case of taking dental impressions at anxious patients (8).

During this meeting, at least 5-10 minutes were allocated to further explanations regarding the treatment that comprised: repetition of general information provided in the first meeting and, in addition, the presentation of further information, discussion over the cases of some patients with similar anomalies, to whom the treatment was successful, and stimulation of an active dialogue. Also, the patients benefited from visual techniques, in the sense of being presented images under the form of photos illustrating some patients with similar anomalies or under the form of movies displayed on the computer (images from the beginning of the treatment, during various stages and images from the final stage of the treatment) associated with the necessary verbal explanations.

The third meeting occurred after 2-5 days and its main purpose was to provide the patients and their

caregivers with information, using an appropriate language, about the established orthodontic diagnosis (based on the documentation necessary to establish the diagnosis we already had) and about the treatment which was to be followed: the type of the orthodontic appliance, the necessity of performing some surgical interventions.

During the following meeting (in most cases, the fourth or the fifth meeting), we resorted to affixing the orthodontic appliance. After affixing the functional and biomechanical appliances, we trained the patients regarding the insertion of the appliance in the oral cavity and its removal. For this purpose, we used some psychological-educational principles, such as: progression, backward chaining, learning by doing (8).

A proper medical practice should not allowed doctors to overstep the limits of the ethics even if there would be strong scientific arguments (9). The success of the orthodontic treatment is provided by a proper treatment plan, parental consent and patients' cooperation. If these three parties do not agree, the treatment cannot start (10). We would add to these, the forth one, respectively the financial aspect.

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