

ABSTRACT OF THE PhD THESIS

THE ROLE AND IMPACT OF PSYCHOLOGY IN PEDIATRIC DENTISTRY

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The complexity of pediatric dentistry consists in the fact that children or adolescents have a different psychological structure from adults, very complex and vulnerable, in a permanent transformation and development influenced by family, school, group of friends. The dentist's intuition and experience are not enough, knowledge of basic psychology of the child, especially of the one in pain is essential.

Therefore, Chapter 1 of the theoretical part of the thesis describes briefly the peculiarities of human mental development to the adult stage, focusing on issues that interfere with dental practice.

Chapter 2 is based on the theoretical description of the motivation for treatment as it is well-known that in case of children treatment involves a long-lasting collaboration which requires motivation and proper disposition. The concept of motivation and notions that define it are explained, types of motivation are described, and specific motivational issues in the pediatric and orthodontic treatment are mentioned. The importance of the first visit to the dentist for further appeals for treatment is emphasized.

Chapter 3 contains theoretical data related to anxiety as a general personality trait and a negative emotion manifested in the dental practice, affecting patient-dentist collaboration. The neurobiological mechanisms of anxiety and its physiological manifestations as well as methods of coping with this negative emotion are described. The causes and effects of dental anxiety are discussed. The utility of the psychological questionnaire method in determining anxiety is justified.

Chapter 4 refers to the management of the anxious patient in the pediatric dental practice, describing theoretically methods for reducing anxiety and relaxation techniques applicable in practical terms.

The personal research includes three clinical and experimental studies related to the chosen topics.

Chapter 1 contains a clinical-statistical study aimed to determine the type, source and intensity of motivation for pedodontic and orthodontic treatments in case of children and adolescents. The variety of effects produced by different types of

motivation demands a particular treatment in each case, the doctor becoming a trainer of motivation for his patient's treatment.

We used the questionnaire method to determine pre-treatment motivation in minor patients by managing two questionnaires designed by us. The results showed that the group aged 11-14, males, is from an intrinsic point of view the least motivated one for the pedodontic treatment. In orthodontics, there is a higher motivation for treatment in female patients. As they grow up, there is an increase of both intrinsic and extrinsic motivation for the orthodontic treatment due to the group of friends or persons of the opposite sex. Extrinsic motivation for orthodontic treatment coming from parents decreases as children grow up. Within intrinsic motivation, the most important motive is to solve dental malpositions, the last motive being to improve masticatory efficiency.

The study included in Chapter 2 aimed to determine the impact of patients' sex and age on the variations of anxiety values viewed both as state and trait and to establish correlations between the values of these two forms of anxiety assessed by means of the psychological questionnaire method and by a device which functions by determining biocurrents which vary in stressful conditions. The obtained correlations led to the achievement of a software that is a support of a clinical protocol for approaching anxious patients. The results showed that age and gender do not influence dental anxiety although mild forms of dental anxiety are more common in girls while the severe ones are frequent in boys and adolescents.

Chapter 3 contains a comparative investigation of the effects produced on anxiety levels, blood pressure and pulse by two relaxation techniques: Breathing Control Technique and Jacobson's Progressive Muscle Relaxation Technique. The results showed the higher efficiency of Jacobson's Muscle Relaxation Technique in reducing all the studied variables which express anxiety and the low variability of their values in patients with trait anxiety.

CONCLUSIONS

1. As children grow up, there is an evident increase in number of those who appeal to orthodontic treatment intrinsic or extrinsic motivated by the group of friends and by persons of the opposite sex they relate emotionally. There is also a decrease of extrinsic motivation coming from parents.
2. Intrinsic motivation for pediatric or orthodontic treatments in children aged 11-14 is the lowest one. It is due to the reduced frequency of odonto-periodontal and occlusal-articular pathology, to the positive self-perception of their teeth

appearance, their mouth, smile, facial harmony and symmetry, self-esteem and social comfort as a result of these issues.

3. The girls' stronger motivation for appealing to pedodontic services is justified by their pathology which is more frequent than that of the boys. The girls' intrinsic motivation for ortodontic treatment is stronger than the boys' one.

4. Dental anxiety is not influenced by patients' sex and age, being a common feature in the orthodontic-pedodontic services. Mild forms of anxiety are more common in girls while the severe forms are frequent in boys and adolescents.

5. We determined correlations between anxiety and variations of biocurrents influenced by the electrical conductance of the skin which lead to more accurate determinations of this negative emotion in the dental practice.

6. The clinical protocol for approaching anxious patients by using a software based on exact values of anxiety is a useful device that can be implemented in pediatric dental practices.

7. Patients with elevated trait anxiety show greater increases of state anxiety and of blood pressure values than those with normal values under stress.

8. Children and adolescents' anxiety can be reduced by using Breathing Control Technique and Jacobson's Progressive Muscle Relaxation Technique, both of them being effective in reducing the values of anxiety (as state and trait), of systolic and diastolic blood pressure and of peripheral pulse.

9. Jacobson's Progressive Muscle Relaxation Technique is more effective in reducing variables which express anxiety than Breathing Control Technique.

10. Patients with trait anxiety react less to the application of the two relaxation techniques than those who are not anxious as a trait.

Key words: children, motivation, anxiety, pediatric dentistry.