ABSTRACT

The present study proposes an analysis of the importance of knowing the emotions, in the context of fact if, a few years ago, dentistry focused strictly on the treatment of somatic symptoms, without giving importance to the psychic and emotional aspects of the patient, the dentists recently sought to improve themselves in the field of patient psychology and state prior to his presentation to the cabinet, as well as post-procedure.

Within the present context we wanted to reflect that the majority of the population has a certain fear of visiting the dentist, some people even developing a phobia, which will have harmful effects not only on the oral cavity but also throughout the body. The success of the odontal therapeutic act is largely conditioned by the physician's ability to empathize with the patient, to know his lifestyle and how he manages his emotions, but also to determine the type of personality he / she falls into.

The physician should also take into account the patient’s bio-psycho-social factors in order to be able to issue a correct diagnosis. At present, a correlation between
oral cavities and psychological/social ones can easily be observed. For example, psychological stress is in most cases the causal factor of gingival inflammation. Another example can be the social factor: parents' beliefs about how oral hygiene and nutrition are achieved. Thus, it is highlighted that correct interpretation and correlation of psychological and social factors with buccal dentistry can be an effective method of diagnosing and establishing a treatment plan.

**Keywords:** psychological training, anxiety, management of emotions,

**INTRODUCTION**

As a science, psychology has over the years seen a number of defining approaches, including:

"Psychology is the science that studies the psyche using a set of objective methods for the separation of its functioning laws with the aim of knowing, optimizing and improving human existence" (Zlate, 2000; see also Drămnescu & Enăchescu, 2018), while one of the founders of modern psychology, William James, stated in 1890 that psychology is "the science of mental life," and as a distinguished personality of the twentieth century, we have Paul Popescu Neveanu (1978), who defines psychology as "the science dealing with psychic phenomena and capacities following their description and explanation based on the discovery of a set of laws, regularities, or determinants".

There are also many interdisciplinary branches of psychology such as medical psychology, legal psychology, military psychology, neuropsychology, social psychology, biological psychology, etc. (Vlăduțescu, Siminică & Dumitru, 2015; Voinea, Negrea & Teodorescu, 2016).

As far as the psychology in dental medicine is concerned, it is divided into two categories: psychodynia (adults) and psychopedagogy (children). (Iorgulescu, 2017, p.
If, in the twentieth century, psychology was treated as an inconstant element that may be missing from the dental medical act, in the 21st century it is an integral part of the odonto-periodontal therapy that leads to successful treatment.

Also, in dental medicine, according to the Bologna Convention, which requires the study of behavioral sciences in dentistry faculties, it can be noticed that combining psychology with behavioral sciences leads to a better knowledge of the behavior of the human being, having as a starting point several perspectives: social, psychological, economic, ethical. (Iorgulescu, 2017, pp. 19-20). Behavioral sciences also help the physician to strengthen his / her relationship with the patient, but also to easily identify factors that contribute to the patient's decision whether or not to be present in the dental office. (Schou, 2000, p. 326). An interesting approach to behavioral science in dentistry can be found in the book "Behavioral Sciences for Dentistry" written by G. Humphris and M. Ling that treats the patient's behavior in the dental office from three perspectives: the psychological perspective where fears, anxieties, before and during treatment and post-surgery are identified, the social perspective where the reasons why a patient chooses to visit the dentist or otherwise avoid the visit and the economic perspective regarding the financial possibility of certain states and social categories to have a visit to the dentist, and afford dental treatments.

 THE ROLE OF PSYCHOLOGY IN CONTEMPORARY DENTAL MEDICINE

As far as the collaboration between dentists and psychologists is concerned, it can be said that this has not been approached for a long time, but after 2000 there was a significant increase in Romania and in other states. For example, if in the US until 1940 there were about 50 scientific articles combining dental psychology, between 1971-1972 350 articles appeared, and in 1973-1974 about 685 articles. (Iorgulescu, 2017, p. 21). A remarkable personality, Mackenzie (psychologist and dentist),
concluded in 1977 that there is a category of dentists physically applying techniques and elements of psychology during dental care, while the second category needs guidance, psychological training.

Behavioral sciences are used daily in the dental office because in many cases it helps to establish a correct diagnosis, to develop a treatment plan, but also to establish a certain type of behavior towards the dental care of the patient. Clinical case: N.A. patient came to the dental office with her 5 year old child for a routine check. During the dental check, the presence of the bacterial plaque in the dental structures, but also the periodontal irritation, as a consequence of the plaque accumulation, was noted in the observation sheet. In her anamnesis, the mother (being a guardian) was asked about the frequency of brushing and its correctness. The mother’s answer was that she did not attach any special importance because they are temporary teeth and will be replaced by permanent teeth. Therefore, it can be noted that the adoption of such a behavior on the mother’s part is the result of insufficient information regarding oral health. As a result, it was explained to the mother that not taking care of temporary dentition that results in cavities and periodontal diseases, which will have a detrimental effect on permanent dentition. Thus, the mother understood the interdependence between the health status of temporary teeth ("baby teeth") and definitive teeth.

An important aspect in a patient’s behavior towards a particular ritual of oral cavity health is time. For example, the younger the patient, the easier is for the dentist to change his conception of a habit that he practices wrongly. If the patient is older, his perceptions and health beliefs are much more difficult to change, basically going into a routine, without the need to make a change. (Schou, 2000, p. 326). In general, older people may notice some degree of reticence towards something new, something that would disrupt their daily rhythm and remove them from the comfort zone.
One of the dental medicine universities that attaches particular importance to behavioral sciences and psychology is the TUFTS University in the United States of America, which has a special department called the Behavioral Sciences Sector, and has the motto: "We teach students to treat people, not teeth." Within this department, dentistry students will attend three courses of behavioral science where they will learn about the correlation between psychiatric disorders and oro-dental conditions. Also, during these courses, they will improve their communication skills with the patient according to their age, sex, affection. (Iorgulescu, 2017, pp. 28-29).

Another area targeted by Dental Behavior is represented by changes in the behavior of patients of extreme ages: children, elderly people. Both categories tend to develop complexities of inferiority due to the aesthetic aspect of the dental-facial structure. If the children predominate orthodontic problems (inconsistency, vestibularization, or the palatation of the teeth), the problem in the elderly is the installation of the edentulous state, translated by tooth loss, which may be partial or total. (Rindasu, 1998, pp. 113-114). As a treatment plan for children, it is necessary to use orthodontic devices, which in turn generates a series of psychological problems: long time of wearing, discomfort in phonation, in nutrition, difficulties in oral hygiene, perception from others. In the case of the older patient, one can observe the reluctance to carry a total prosthesis and its rejection by accusing a state of uneasiness. Frequently, the total prosthetic patient tends to consider himself a "disabled" person, this being a mental intolerance of the prosthesis (Manolea, 2011, pp. 29-30). There is this patient concept because it associates, for example, the loss of a member and replacing it with a prosthesis with the loss of teeth and replacing them with a dental prosthesis. However, if the person with complete dental loss does not accept prosthesis, will suffer symptoms such as: chewing disorder, phonation, physiognomy (characterized by an unpleasant aspect by: accentuating naso-labial ditches, clogging of cheeks, reducing the vertical dimension of the lower floor, ), but also mental
disorders manifested by behavioral changes, often aggressiveness, hostility, irritability, which can also affect those around the patient (Rindasu, 1998, pp. 114-115).

MANAGING PATIENT EMOTIONS IN THE DENTAL OFFICE

Certainly, most individuals tend to perceive emotion as a feeling. However, emotion has a complex structure that embraces both what we feel and what we think and how we act. Also, emotions are characterized by three aspects: physical, behavioral and cognitive aspect. (Hasson, 2016, pp. 16-18). Clinical case: The 25-year-old M.M patient is present in the dental office to perform routine check-ups and hygiene. The patient, who is known to have anxiety because of unpleasant previous experiences, has:

<table>
<thead>
<tr>
<th>Physical appearance</th>
<th>Behavior</th>
<th>Cognitive aspects</th>
</tr>
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<tbody>
<tr>
<td>Tachycardia</td>
<td>Postural rigidity</td>
<td>M.M. described the treatment as painless but the anxiety he suffered from caused the amplification of each stimulus</td>
</tr>
<tr>
<td>Blushing of the skin</td>
<td>Lack of reactions</td>
<td></td>
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<tr>
<td>Excessive sweating</td>
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<td>Saliva abundance</td>
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A dentist with experience and training in patient psychology and emotions knows the concept of emotional intelligence. Emotional intelligence is the ability of a person to know their emotions, understand them, and know how to handle them (Hasson, 2016, pp. 28-31). However, in most situations, the dentist is the one who teaches patients how to control their emotions in the dental office. We make this statement because a large part of the population is scared about the visit to the dentist and without the help of the doctor, this condition can not be improved, even if there is a situation when it becomes aggravating. When a patient suffers a trauma in the
dental office, he will avoid going for control or even refuse to ever come back to the dentist no matter how big the problems are. Few patients, however, know that dental or dental disorders directly affect other organs or organ systems. For example, by installing the edentation (tooth loss), foods are no longer properly fragmented, leading to problems of the digestive system. (Rindasu, 1998, pp. 114-115). The presence of inflammations at the level of the dental structures can lead to germs in the bloodstream and may lead to cardiovascular diseases.

Concerning patient anxiety in the field of dental medicine, we can often notice people suffering from pre-operative anxiety. In practice, these people tend to anticipate what happens during and after treatment, putting the negative consequences in the forefront. Often, the patient has a lot of worries about pain, complications that may arise, the success of the medical act. One important aspect is the effectiveness of local anesthesia in the case of an anxious personality, because due to fear, a large amount of adrenaline is discharged into the body, which decreases the effect of anesthetics, sometimes rendering it ineffective (Iorgulescu, 2017, p. 100).

As theories about anxiety we can highlight the predisposing theory supported by Seligman (1975). This describes how the fear of a particular situation / object can be transmitted from one generation to the next. We can not talk about a gene of anxiety, but about the existence of a gene that predisposes to a certain type of anxiety in the descendants. In dentistry, this theory has a fairly high frequency, observing numerous cases where dentist fear is present in both parents and children. One of the reasons why anxiety is present in both generations is that parents have suffered a traumatic experience with the dentist and tend to transmit fear to children, even indirectly. A first step would be for the dentist to give a short briefing to the parents before their first visit to the dentist. Parents will be advised to describe their first visit to the dentist in a pleasant, jovial way to attract the child’s interest, but also to provide a safe state. It is also advisable for the adult to wait in the waiting room during the
child’s treatment in order to strengthen the dentist-patient relationship. Another reason the adult will stay in the waiting room is to prevent the child from influencing the treatment to be administered. Example: Many parents are threatening their children that if they do not stay well, the doctor will inject them; Once this threat is drawn, the child will develop an associative anxiety towards the dentist. So the baby - the future adult will have a reaction of fear and the simple thought of visiting the dentist will be associated with the injection. Of course, the child can be accompanied in the office by parents when necessary, usually between 0-2 years when they can not move and do not understand what is going on or in cases of serious pathologies such as psychiatric problems. At the same time, parents or other persons designated as guardians are required to complete and sign the child’s anamnesis. The anamnesis is also to be done with the child patient, but in the form of an interview with the parents, in the form of a questionnaire, in order to have a legal document. Establishing the history together with the child has a beneficial role because the anamnesis is not only a simple act of legal proof, but also an effective method of psychoanalysis (Freud, 1980). With the help of an anamnesis, the dentist can determine the type of personality of the child, his temper, his fears, the experiences that lead him to adopt certain behaviors.

Besides the emotions expressed verbally (conscious) by the patient, the dentist must also be mindful of non-verbal (unconscious) emotions. Non-verbal emotions can take on different forms: gestures, mimic, the way we look at a person, the position we adopt, etc. This non-verbal communication is important in the dental field as it is a base for building verbal communication, basically completing verbal communication. In the case of this type of communication, a confusion can occur if the individual focuses on a particular subject verbally, but through non-verbal communication fails to convey a message in accordance with the verbal. (Hasson, 2016, pp. 69-71). Frequently, in the dental office, non-verbal communication also fulfills the role of
patient support. Clinical case: Patient A.F., 52 years old, came to the dental office to perform a dental extraction of a lower molar. She is known as a patient with a fear of needles, as well as other dental treatments. The procedure was hampered by the need for anesthesia and the patient has become more tense due to the use of the needle. In this regard, it was decided to explain to the patient that we would apply a spray with local anesthetic at the puncture site to prevent feeling the needle sting. After applying the spray, the anesthetic puncture was performed normally without the patient having behavioral reactions. During dental extraction, the nurse held the patient's hand for encouragement, to give her confidence and support. At the end of the intervention, the patient appreciated this gesture and said she felt a sense of safety and protection.

Another element of non-verbal communication in dentistry is proxemics. This gives us information about the distance between the medic and the patient. There are four types of distances: intimate, personal, social, and public. (Hasson, 2016, pp. 76-77). Generally, there is either intimate or personal distance between the dentist and the patient due to the dental maneuvers to be performed. This approach often helps to build a friendly relationship between the dentist and his patient. Thus, a patient's affectivity to his doctor is often generated. Of course, if affectivity is framed within normal and moral limits, it can be a contributing factor in strengthening the physician-patient relationship. Also, the close relationship between motivation and affectivity must be emphasized. (Andronic, 2004, pp. 88-89). The higher the degree of affectivity, the greater the patient's motivation to attend the dental check on a regular basis and to follow the prescribed treatment.

Regarding the management of emotions (Popescu & Stefan, 2014; Popescu, 2015), it should be mentioned that management does not imply the inhibition of emotions, but their approach in a beneficial way to both the psyche and the organic structure. In the dental office, we most commonly encounter fear-based emotions. Although fear is a short-lived emotion that ends its action with the disappearance of
the stimulus that causes it, it produces an intense psychological struggle. In this situation, it is advisable to use various strategies that distract attention. In the process of managing the patient's emotions, the dentist must show empathy. Empathy is often characteristic of people with a developed emotional intelligence. (Hasson, 2016, p. 99). With the help of empathy, the dentist manages to understand what the patient feels, what he thinks trying to translate into his place. However, it is worth noting that most doctors who empathize with patients become affected by their problems and instead of being objective about understanding the emotions they find themselves in a situation where they are dominated by the negative experiences of the patients. This overwhelming problem leads to the establishment of subjectivism which results in inconsistencies and even the failure of the odontal therapeutic act. Therefore, the dentist must effectively use his / her empathic capacity without damaging his / her own health or endangering local dental interventions.

There are many people who call on the dentist for a botulinum toxin (botox) treatment to correct wrinkles. Few know, however, that some patients are developing an obsession with this type of procedure after the first treatment. These patients are quick to resort to alleviating the small defects that can occur at the facial level. They are at the point where they no longer perceive the difference between the expression wrinkles that arise from the various states of emotion they display through facial expressions / microexpressions and wrinkles caused by aging. By introducing an exaggerated amount of botulinum toxin we see how the patient gets a perfect skin, but that is inexpressive. Often this inexpressiveness gives the feeling of "wax". A novel element is that an "inexpressive" person suffers from a decrease in the functionality of the mirror neurons. (Hasson, 2016, pp. 101-102). Mirror neurons are the ones that help us understand facial expressions. And if the individual is no longer able to display his own facial expressions, the less he will be able to interpret the expressions of others.

- Addressing patients with special needs in the dental office
4 CLINICAL CASES

Case no 1:

The 49-year-old H.C. patient is present in the dental office with the desire to rebuild her smile because it has been severely affected by excessive tobacco consumption (3 packs / day). The patient is diagnosed with schizophrenia, is undergoing psychiatric treatment, and when her health gets worse, she comes to the cabinet with her mother. She has been a patient of this cabinet for 20 years. Three months ago she was again admitted to a psychiatric center for 2 months because she refused to take her medication, had auditory and visual hallucinations, causing her to flee from her home, being found after two days out of town by police officers notified by her mother. The requested treatment required the patient to be present for 3 sessions. In the first session, she was fully cleaned (scraping, brushing, air-flow). The session went well, and the patient was familiar with the procedures, because they were performed every 6-8 months. The second session involved the placing fillings, in which case a little discomfort occurred in the oral cavity due to the need to isolate the buccal environment in order to avoid penetration of the saliva into the canal. Because of the discomfort, the patient began to experience a state of restlessness, anxiety. So, it was decided to give her a little break, in order to calm her and to explain why this procedure is required. During the break we tried to address other subjects with the patient, in order to relax and distract her. Finally, the meeting ended with the patient being satisfied with the functionality, but also with the aspect of the work. At the third meeting we did the professional whitening. During this session, the patient came already disturbed / agitated, which made it difficult to apply the treatment, and we had to take a break frequently, as she claimed to have symptoms such as dental pain, irritation of the mucosa when applying the whitening gel. However, from a medical point of view, these symptoms should not have occurred, because before the proper treatment we made the desensitization of the teeth (pain can not occur), but also the isolation of the gum with the
gingival barrier (the mucosal irritation can not appear). To check for the signs of inflammation (rubor, tumor, calor, dolor) at the gum level, we removed a small part of the barrier and I noticed that the mucosa has a normal appearance. Most likely, the patient was impatient, scared of complications that might arise, putting negative aspects at the forefront. This fear of complications has its roots in the searches the patient has made on the internet about the treatment he was about to get. After completing the treatment, the patient was informed of what foods and drinks they should avoid, was fluoridated to rehydrate her teeth, and prescribed calcium for one week. The problem arose after three days when the patient showed up in the office and said that because of calcium there was insomnia for 3 days and considered that the psychiatric medication it takes interferes with calcium. We have documented from a pharmaceutical point of view and it was concluded that the medications they took did not produce adverse effects in combination with calcium. Again we calmed the patient, talked with her, and offered her the opportunity to argue her views, and concluded that he would stop oral calcium administration and brush her with the calcium toothpaste.

Case no 2:

Patient S.E., aged 4, presented herself with her grandmother in the dental office. Her grandmother decided to make this visit because she was aware that the girl had abrasions on all her teeth. The patient was diagnosed with ADHD in Bucharest, but she was not receiving any medication, only therapy sessions. It is important to know that ADHD patients have bruxism, as is the case with this little girl, which results in teeth abrasion. Also, another symptom of ADHD, manifested in the oral cavity is xerostomia (Iorgulescu, 2017, p. 216-217). The patient asked for a glass of water every 15-20 minutes because she claimed her mouth was dry. The first visit to the dentist started by building a friendly relationship with the little patient, but also by getting her acquainted with the dental domain. The first step was to paint with her dental cards (toothfairies, toothpaste,
brushes, little teeth) and explain to her what could happen if she neglects her teeth. Then we watched together an educational video, where she learned why it is good to go to the dentist and how many times a day we need to brush our teeth. In the next step, we applied the Tell.Show.Do method that proves to be effective for all children. It means telling the child about certain materials, instruments, apparatus in the cabinet, and we will present them, and then let him play with them, of course under the careful supervision of the doctor, so as not to get hurt. However, throughout the visit, I noticed that the patient was overactive, unable to carry an activity to the end.

CONCLUSION

In conclusion, it can be argued that the dental sphere is not only related to the treatment of dental-facial affections, but is an extremely complex field that encompasses both knowledge of human psychology and general medicine. In order for a dental-facial treatment to be considered successful, it must meet three conditions: to be functional, to be aesthetic and to not affect the patient’s psyche.

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