

# Sociological Assessment of the Organization of Orthopedic Dental Care for Patients with Excessive Facial Defects

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**Abstract** The article is devoted to the improvement of clinical and organizational aspects of orthopedic dental care for patients with maxillofacial defects only when there is certain information about the activity of dental institutions in this department. For the first time, statistical data on this type of activity are presented. A sociological survey was conducted among orthopedic dentists working in the Samarkand region.

**Keywords** Organization of dental care, Statistics, Social status, Orthopedic treatment

## 1. Introduction

Improvement of clinical and organizational aspects of orthopedic dental care for patients with maxillofacial defects can be done only if there is some information about the activity of dental institutions in this department. The analysis shows that there are almost no statistics on this type of activity.

Today, orthopedic rehabilitation of this category of patients is the most urgent issue. Defects in the face-jaw area occur with different frequencies and have different development. Usually, they are accompanied by obvious aesthetic and functional disorders. In this case, the orthopedist-dentist is faced with the situation of solving a complex clinical and psychological problem, i.e. restoring the lost functions and an appearance close to the natural appearance.

## 2. The Purpose of the Study

The variety of data created the necessary conditions for conducting a sociological survey among orthopedic dentists at the initial stage of the research to identify the most important problems in the organization of their activities in the treatment of patients with acquired maxillofacial defects (OMD).

## 3. Research Materials and Methods

In this regard, the first question of the questionnaire was as follows: "Have you come across the orthopedic treatment of patients with maxillofacial defects in your practice?". 83% of respondents answered yes to this question. It was found that 17% of the respondents had no experience with the category of OYuJN patients. The structure of the answers to this question is determined by the clear connection between the experience of treating patients with OYuJN and the experience of dentists-orthopaedists. As work experience increases, the frequency of positive answers to this question increases. This pattern may be due to the fact that the treatment of patients with OYuJN is a complex activity that requires appropriate training, skills, and clinical experience in orthopedic dentistry. In addition, as confirmed by our statistical studies, patients with this pathology are extremely rare. This, in turn, explains that doctors with little work experience do not have the opportunity to face such patients in practice.

A psychogenic factor, emotional-stressful situations, anxiety-depressive, dysmorphic disorders - this is a typical list of disorders in the emotional-voluntary field in patients with maxillofacial pathology with unsuccessful results of reconstructive surgery, bruxism, etc., during the rehabilitation period after complex dental and orthopedic interventions.

In addition, psycho-emotional disorders are involved in the formation of psychosomatic vegetodysfunction syndrome and support the mechanisms of parafunctional disorders of chewing and facial muscles. Among RT methods, needle therapy takes one of the leading places as a physiological correction of disturbances in the psycho-emotional sphere. However, it has been noted that basic methods are not always effective.

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It is customary to distinguish the following main types of treatment: isotropic - aimed at eliminating etiological factors; pathogenetic - affecting the mechanisms of disease development; symptomatic - eliminating the symptoms of the disease. All of them together form a solid basis for a set of treatment and rehabilitation measures.

The basis of the reflexotherapy mechanism is the formation of differential afferent currents from receptors of different modalities located on the skin projection of acupuncture points. These afferent currents change the functional state of various parts of the central nervous system, resulting in changes in sensory thresholds, excitability, psychoemotional and autonomic reactivity, muscle mobility, vascular tone, immunological state, and tissue tropism.

An enhanced method of scalpoauricular electroneuroreflexotherapy (SAENRT) was developed.

The aim of the study was to substantiate the practical application of the potential SAENRT method for the correction of psycho-emotional disorders in patients with maxillofacial pathology and dental problems.

#### 4. Research Object and Methods

In the structure of the central nervous system, the limbic system and the limbic-reticular complex control the affective sphere, and emotional reactions. 213 SAENRT method was used to correct anxiety-depressive disorders for reflex activation of the limbic-reticular system of the brain. The effect is on the projection area of the limbic-reticular system of the brain (line MS5 of scalp puncture microsystem) and areas of anxiety, and depression (the first and third quadrants of the auricle according to P. Noj'e cartogram) as well as 28, 25, 34, 26a, 55, 100 auricular points (ms5 scalp puncture microsystem line) transferred to SAENRT was performed on the "Kadr-16A" device, the electrodes were acupuncture needles, with a pulsed bipolar current with a neurotropic form of "spike-wave" impulse at resonance frequencies of 6, 3, 10, 25, 125, 146Hz with 2 minutes of exposure for each frequency was impressed.

Treatment was carried out in 12 patients with the psychosomatic syndrome (bruxism - 4, complicated neuralgia of the trigeminal nerve - 5, post-traumatic neuropathy of the facial nerve with cosmetic defects - 3).

Initially, anxiety, internal tension, lack of sleep, fear, low mood, general fatigue, reluctance to communicate with others, and crying were detected in all patients.

#### 5. Results

Anxiety and depression levels decreased by an average of 25% after 4-5 treatments of SAENRT during psychological testing. No side effects were observed, all patients took the treatment enthusiastically, felt "inner peace" during the treatment, and some even fell asleep. After 8-10 treatments of SAENRT, the positive dynamics stabilized.

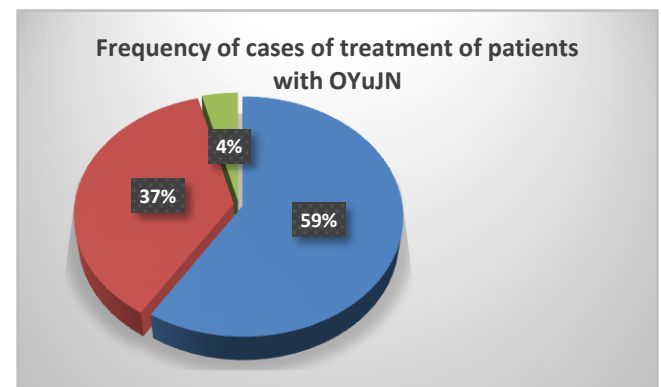
The duration of sleep increased in the patients, the mood

improved, there was no crying, and there was a desire to communicate with other people. It is worth noting that the SAENRT method is performed outside the maxillofacial region, which expands the possibilities of treatment in the presence of operative sutures, orthopedic structures, and apparatus.

Thus, the developed SAENRT method is an effective method of treating anxiety-depressive disorders in psychosomatic diseases in dentistry, maxillofacial orthopedics, and surgery.

This method is one of the best ways to correct the functional state of the body of patients with maxillofacial injuries. This is because, through the multilevel and multifactorial response of the skin's surface to stimuli, it can produce immune-enhancing, desensitizing, and/or numbing, pain-relieving effects.

Has it and regulates the tone of the autonomic nervous system. At the same time, SAENRT not only helps to maintain homeostasis but also stimulates various forms of adaptive activity of the body, it can be considered a promising tool to prevent the development of an immunodepressive state.



**Figure 1.** The structure of answers to the question about the frequency of cases of treatment of patients with OyuJN (59% - 2 cases in 1 year, 37% No more than 1 case in 1 year, 4% 3-4 cases per year)

In the next question of the survey, it was necessary to determine the number of cases of treatment of patients with OJU per year by doctors who answered positively to the previous question. The value of this information depends not only on the experience, age, and place of work of the respondents but also on the establishment of certain relationships. This information, taking into account the representative size and composition of the respondents, makes it possible to make approximate calculations of the cases of orthopedic dental treatment of patients with OYUJN who are not officially registered.

As can be seen from the graphic data presented in Figure 1, the largest share (59%) of doctors was obtained with the answer indicating 2 cases of orthopedic treatment of patients with OA per year. In second place was the answer "no more than 1 case per year", which is 37%, and in third place - "3-4 cases". An insignificant share (4%) was obtained with the answer of the respondents indicating 3-4 cases of orthopedic treatment of patients with OA. This

distribution clearly shows that patients with such pathology are rare. It should be noted that treatment in dental institutions for orthopedic rehabilitation is rarely available. Based on this, it can be assumed that the redistribution of patients between specialists is carried out following the specialization of these patients by orthopedic dentists in a certain institution.

### Results of the study

Thus, the most experienced physicians may be more exposed to the studied pathology in practice and have more experience in the orthopedic treatment of patients with OYuJN.

Orthopedic dental treatment of patients with OA requires special skills that have not yet been developed in young specialists, which is confirmed by the lack of answers in the group of respondents with up to 5 years of experience in the survey. It can be seen that when applying to dental organizations, patients, on the recommendation of other doctors, turn to specialists with sufficient work experience and experience in the orthopedic treatment of morphological and functional disorders of the maxillofacial area.

This, in turn, leads to obvious psycho-emotional stress in the work of an orthopedic dentist, which was determined by the high frequency of answers to this question in the survey. One of the reasons that prompt doctors to avoid accepting patients with OYuJN is the unpredictability of the costs and the final result of the functional and aesthetic value of the prosthesis. 58 respondents (out of 100 respondents) indicated the reason for this. It is difficult to predict the cost of orthopedic treatment of patients with OA. Often, it is necessary to change the prostheses, their repeated correction, and change the design and treatment plan. This situation does not lead to the pre-planned and expected result in all cases. In addition, the orthopedic treatment process of such patients usually takes a long time.

This situation can be explained by the high frequency of this reason, as more than half of the participants of the study - orthopedic dentists - indicated in their answers. At the same time, the analysis of the answers to this question showed that a third of the doctors (34 out of 100 respondents) mentioned the lack of experience in prosthetics of patients with OYuJN as the reason for avoiding accepting patients. Perhaps this group of respondents is mainly represented by professionals with little work experience. However, this fact should be taken into account in the improvement of orthopedic dental care in the department of "maxillofacial prostheses" and in further consideration of the issues of training specialists in these matters at the post-graduate level. Among the answers to the question, one of the last reasons - "fear of the appearance of patients with OYuJN" was indicated, which corresponded to 28 out of 100 respondents.

Thus, it can be said that at present, a certain idea has been formed about the attitude of doctors to the contingent of patients with OYuJN. Doctors understand the complexity

and intensity of the therapeutic and diagnostic process from a clinical and psychological point of view. At the same time, we cannot deny that there are conflicts between the psycho-emotional and physical costs of labor and the economic results of labor. Most often, patients with OYuJN belong to the socially unprotected strata of society with a low-income level.

Accordingly, the issue of state regulation of this issue is raised through the targeted financing of medical care for maxillofacial prosthetics, with the separation of specialized medical structures engaged in this type of activity. This should help to improve the access and quality of orthopedic dental care to patients with morphological and functional disorders of the maxillofacial region.

The questionnaire's special question consisted of the following: "Do you think it is necessary to have coherence in the implementation of reconstructive-restorative operations in the face-jaw area in the field of orthopedic-dentists and surgeon-dentists?". 94% of respondents answered yes to this question. No negative responses were recorded and 6% of respondents had difficulty answering.

In this regard, the question was asked about the possible ways of forming this continuity. Respondents indicated three main points that need to be applied to improve the continuity of the work of specialists and increase the effectiveness of medical care for patients with maxillofacial defects:

- "participation of an orthopedic-dentist in the planning process of surgical intervention" - 63 doctors out of 100 who participated in the survey;
- "the need of the orthopedist-dentist to communicate with the patient before surgical intervention" - 76 doctors out of 100 who participated in the survey;
- "to provide information about the available technologies of orthopedic dental rehabilitation to the dental surgeons performing the surgical intervention to refer patients to the dental organizations" - 92.4 out of 100 doctors who took part in the survey.

The frequency of these answers shows that they all have very high levels. At the same time, most responses were given by dental surgeons to inform patients.

The study was also aimed at studying the attitude of the respondents to the level of training of specialists in the orthopedic treatment of patients with OYuJN:

- 68% of respondents indicated that there are problems in this matter;
- 13% of the respondents believe that there are no problems with the training of specialists;
- 19% of respondents had difficulty answering.

During the survey, doctors who answered the above question positively noted that there are the following problems in the system of training specialists:

- "insufficient qualifications of orthopedic dentists and dental technicians" - 49%;
- "limited amount of knowledge on this issue at the

pre-and post-diploma level" - 87%;

- "low interest of orthopedic dentists in the deep specialization on this issue" - 91%.

It is clear from the presented data that the main problems are related to the lack of interest in the training of specialists in this field and the lack of educational information that doctors receive in higher educational institutions at the pre-diploma and post-diploma levels.

## 6. Conclusions

Thus, the conducted sociological research revealed several problems in the state of medical care for patients with OYuJN existing at the modern stage.

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