



All-Ukrainian Scientific and Practical Conference “Prospects and Opportunities in Modern Dental Science and Practice”, dedicated to the 85th anniversary of the birth of Professor, Honored Scientist and Engineer of Ukraine Valery Isaevich Kutsevlyak”

**PREVENTION AND MANAGEMENT OF ANXIETY IN PATIENTS WITH  
GENERALIZED PERIODONTITIS AMONG THE CIVILIAN  
POPULATION IN A COMBAT ZONE**



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## Relevance

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Generalized periodontitis (GP) is a multifactorial dental disease characterized by an infectious-inflammatory process in the periodontal tissues, leading to the gradual destruction of the tooth's supporting and retaining structures and resorption of the alveolar ridge (Mazur I.P., 2023). The presence of stress has a significant impact on the body's resistance and, consequently, on the development, course, and treatment of periodontal diseases. Its presence should be taken into account in the comprehensive treatment of patients with generalized periodontitis (Kononova O.V., 2019)



## Relevance

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Hostilities in the eastern regions of Ukraine have been ongoing since 2014; however, martial law has not been declared across the entire territory of the country, and the specifics of providing dental periodontal care to the civilian population in the zone of active hostilities have not been analyzed previously (Kanyura O.A., 2022)



## Relevance

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Unfortunately, dental treatment causes a certain degree of fear in patients; during dental appointments, dentists observe anxiety, psycho-emotional stress, and fear in approximately 40.9% of patients (Gorodnov E.V., 2024)



## Relevance

Anxiety is a state of heightened tension and a certain readiness to perceive a threatening stimulus. Since this state of tension is uncomfortable for the body, it “serves as a motivation to escape a dangerous situation, thereby reducing the intensity of tension and, possibly, the chances of encountering a traumatic stimulus” (Mowrer O.H., 1940)





**The aim of the study** is to examine the problem of generalized periodontitis as associated with manifestations of anxiety and to identify preventive methods for overcoming dental anxiety in civilian patients residing in a combat zone



## Materials and methods

This cross-sectional study included 82 patients who sought dental and periodontal care at the University Dental Center (UDC) of the Department of Dentistry at Kharkiv National Medical University (KNMU) between 2022 and 2024. Among the examined patients were 45 (54.8%) men and 37 (45.1%) women aged 35–55 years. The condition of periodontal tissues was assessed according to the International Classification of Periodontal Diseases (2017)

In addition, the groups were tested using the Korach Dental Anxiety Scale (DAS); this method was used to assess anxiety, fear, and other negative emotions associated with treatment and visits to the dental clinic. Prior to the start of the examination and treatment of generalized periodontitis in patients exhibiting signs of anxiety, in accordance with the study protocol, voluntary informed consent to participate in the study was obtained from the civilian population residing in the combat zone

## Results and Discussion



- During the initial examination of patients with generalized periodontitis associated with symptoms of anxiety, the most prominent complaints were bleeding while eating solid foods (95.8% of patients), discomfort in the gums (80.3%), accompanied by complaints of mobility of individual teeth (45.7%), bad breath (60.5%), and rapid plaque formation (64.4%). During the physical examination, patients exhibited hyperemia, a cyanotic tinge of the gums, changes in the shape of the gingival papillae, thickening of the marginal ridge, and looseness and swelling of the gums. Significant deposits of supragingival and subgingival calculus were observed in 75.4% of the examined patients. In addition, periodontal pockets with depths ranging from 2.0 to 4.0 mm were observed in 39.5% of patients, predominantly in the interdental spaces. We also identified gender differences regarding satisfactory oral health, which was more frequently diagnosed in women: 18.7% versus 26.9% in men ( $p < 0.01$ ). Consequently, poor oral hygiene was more common among men than among women: 52.5% versus 26.3% ( $p < 0.05$ ). The results indicate poor oral health among patients, which is one of the etiological factors contributing to the development of periodontal disease

## Results and Discussion

We also conducted testing using the Korach Dental Anxiety Scale (DAS). The results of the study suggest that patients do not experience any particular anxiety while waiting for their dental appointment (22.5% of women and 37.7% of men), 1.6% of female patients and 26.5% of male patients experience anxiety; 37.5% of women and 15.9% of men fear pain; and 25.5% of women and 19.5% of men are frightened by the dentist's potential actions. The survey results revealed that feeling relaxed in the dentist's chair while the drill is being prepared for use is characteristic of 2.4% of women and 11.1% of men; a state of anxiety is characteristic of 18.2% of female patients and 32.6% of male patients; tension is present in 29.3% of women and 24.2% of men; anxiety and fear are experienced by 22.9% of women and 18.7% of men





Results and  
Discussion

Mastering methods for normalizing autonomic functions, alleviating neuropsychological stress, and using relaxation techniques and strategies to suppress unwanted reactions in challenging situations; acquiring skills to boost energy, increase overall vitality, and enhance an individual's inner stability and neuropsychological resilience (Igumnova, O.B., 2014)

Using the breathing exercises pioneered by K. Buteyko, A. Strelnikova, and Y. Vilunas, our body is saturated with oxygen, blood circulation improves, metabolic processes are accelerated, our emotional state stabilizes, and our immune system is strengthened (Porada, A., Solodovnik, O. V., Prokopchuk, N. Ye., 2008)

## Results and Discussion

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- Breathing exercises improve and stimulate external respiration, aid in recovery after physical exertion, and have a specific beneficial effect on individuals with special needs who have impaired respiratory function. Given their significance and the wide-ranging impact on a person's functional state, breathing exercises are grouped under the general term "breathing exercises" which encompasses various types of exercises, vocal exercises, and different sets of gymnastic exercises and types of breathing exercises, including the Eastern breathing exercises of Tai Chi-Qigong; Bodyflex; and yoga routines (Semenov A.M., Lazurenko S.I., 2013)
- Breathing exercises are a system of breathing techniques and an effective way to improve one's health. Breathing exercises improve and stimulate the function of external respiration, promote faster recovery after physical exertion, and have a positive effect in cases of certain respiratory diseases (Ivanova L.I., Suschenko L.P., 2012)

## Results and Discussion

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- An analysis of the scientific and methodological literature makes it possible to select various methods and exercises for overcoming dental anxiety and stress in patients with generalized periodontitis among the civilian population who are experiencing symptoms of anxiety and are located in a combat zone. The proposed techniques can be used for self-help and to regulate emotional states. Exercises should be selected on an individual basis: for some people, it is easier to normalize their psychological state through muscle relaxation, while for others, it is through physical activity; some people make better use of their imagination, while others rely on abstract-logical thinking. Therefore, it is advisable to try all the techniques but apply only those that prove to be the most effective.

## Conclusions

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- An analysis of theoretical sources and the conducted study on the issue of overcoming anxiety and negative emotional states among civilians in combat zones who have generalized periodontitis allows us to conclude that that a prevention program should be comprehensive in nature and aimed at encouraging patients to reflect on their experiences and teaching them self-control in emotionally stressful and anxiety-provoking situations

Life is long if you use it wisely!!!  
Seneca

Thanks a lot for your attention!