

## REVIEW

by

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Included by order № P-109-101 / 07.03.2022 as a member of the scientific jury in the procedure for obtaining the educational and scientific degree "Doctor" in the professional field 7.2. Dental medicine in the doctoral program "Therapeutic Dentistry"

**Author:** *SIMEON ZDRAVKOV CHOKANOV*

**Form of doctoral study:** full-time education

**Department:** Conservative dentistry and oral pathology, FDM at MU - Varna

**Topic:** *DRUG ADDICTED PATIENTS - ORAL HEALTH AND MANAGEMENT*

**Scientific Supervisor:**

**ASSOC. DR. ASYA KRASTEVA-PANOVA, D.Sc. PhD**

### **1. General presentation of the procedure and the doctoral student**

The review of the documents shows that the procedure for expelling the doctoral student and the procedure for declaring the defense are followed, the documents are prepared in accordance with the requirements of the Academic Staff Development Act in Bulgaria, the Regulations for its implementation and the Regulations degrees and holding academic positions at the Medical University - Varna.

### **2. Brief biographical data about the doctoral student**

Dr. SIMEON ZDRAVKOV CHOKANOV graduated in 2017 at the Faculty of Dental Medicine at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, obtaining a master's degree "Dental medicine". In the same year he started working as a part-time lecturer in the Department of Conservative Dentistry and Oral Pathology, and since 2018 he has been a full-time assistant at the same department. In 2019 he was enrolled as a full-time doctoral student. In 2019 he acquired an additional qualification "Master in Health Management" at MU - Varna. In connection with the dissertation, the candidate has published **2 full-text articles** and has made three presentations at scientific congresses.

### **3. Relevance of the topic and expediency of the set goals and objectives**

The topicality of the topics developed in the dissertation is beyond any doubt. Drug addiction is a serious social and medical problem. Patients suffer from a variety of oral pathologies and are often carriers of various infectious diseases. Their treatment in dental practice is difficult and a challenge for most dentists. As early as 2011, the research team under the project "Oral Health in Drug-Addicted Patients", implemented at the SPF - Plovdiv, reached these alarming

findings in its study. Unfortunately, this pilot project for Bulgaria did not find a wide response among the dental community and the topic remained "frozen" for the next 10 years. That is why the courage of Dr. S. Chokanov to tackle this difficult problem, against the background of the growing number of drug addicts in the country, deserves admiration. In this context, the lack of specific protocols for diagnosis and treatment of this contingent of patients in our country is a serious omission, which justifies the development of the presented dissertation. The set goal, namely to assess the oral health and the peculiarities of oral pathology in drug addicts and subsequently to develop a specific algorithm for prevention and treatment in this group of persons, is appropriate and necessary for both medical and social point of view.

#### **4. Knowledge of the problem**

The literary review of the dissertation is comprehensive. In six chapters, the dissertation examines all the problems of drug addiction in the context of systemic and oral health. Another very serious concomitant problem in drug addicts is presented in detail, namely the use of alcohol, nicotine and drugs. A separate chapter discusses the most important comorbidity for dentists in these patients - infectious diseases. Their importance is analyzed not only as a concomitant pathology, which has manifestations in the oral cavity, but also as an infectious risk. The effects of long-term drug use on oral health are discussed in detail in Chapter 5. A separate chapter is devoted to working with drug addicts, which analyzes the importance of the problem for dental practice, recognition of these patients and their management.

It can be concluded that Dr. Chokanov has thoroughly studied the topic. The review stands out with an analysis that clearly outlines the unresolved issues, the most important of which is the lack of specific protocols for the diagnosis and treatment of drug addicts in dental practice. This analysis organically connects the review with the goal and tasks formulated by the doctoral student.

#### **5. Research methods**

The goal is clearly formulated, and the five tasks for its solution are logically and comprehensively selected and described. To solve them, a sufficient amount of clinical material was used (154 patients, divided into two groups - drug addicts and healthy controls). Drug-addicted patients are recruited from the opioid detoxification program at the University Hospital "St. Marina" LTD, and the healthy controls are from the private practice of the dissertation in Varna. The selection of participants is subject to well-defined criteria. In the first task, the doctoral student aims to perform a comprehensive assessment of oral health in anesthesia-dependent patients (dental and periodontal status, the presence of oral lesions, quantitative and qualitative studies of saliva, halitosis). The second task uses a survey method in order to identify risk factors in drug addicts and their relationship with oral pathology. For the purposes of the study, a questionnaire was developed, which aims to collect information about patients, the onset of addiction, oral hygiene and health habits, eating habits, smoking, alcohol consumption and others. After analyzing the patients and the available infectious diseases, they are compared with the clinical findings for oral health found during the examination. In addition, a questionnaire is used to make or reject the link between drug use and oral findings. The third task assesses the relationship between changes in the oral cavity and the use of various drugs (using statistical methods). As in Task 2, patients' medical records are used here to be divided into groups according to the drugs used. The fourth task analyzes the impact of dental status on the quality of life of drug addicts (statistical analysis of questionnaires). In the fifth task, which summarizes the results of the previous four, the author proposes an algorithm for a complex dental approach in the treatment of drug addicts and a protocol for the behavior of the dentist.

The methods and the scheme of conducting the researches are exhaustively described. The statistical methods used are correctly selected, which is a prerequisite for the reliability of the conclusions.

## **6. Characteristics and evaluation of the dissertation**

The dissertation is written on 145 standard pages and is illustrated with 33 figures and 27 tables. The literature includes 218 literary sources, of which 8 in Cyrillic and 210 in Latin.

The dissertation begins with a literature review on the issue, which is competently written and informative. The review clearly outlines the unresolved problems in the dental treatment of drug-addicted patients in Bulgaria, and this problem-oriented analysis organically connects the literature review with the goal and tasks formulated by the doctoral student. The citation of Bulgarian authors who have worked on these issues in the last 10 years makes a good impression.

After formulating the goal and the five tasks, the dissertation presents the materials and methods used in the dissertation. The results of clinical, paraclinical and statistical studies obtained during the tasks are correctly described and accompanied by well-structured tables and figures (some of which are photographic material).

I believe that in the development of the dissertation, sufficiently significant results have been obtained, the nature of which can be defined as enriching the existing knowledge about oral pathology in drug addicts and arguing the need for a special approach to their treatment. The discussion of the results is synthetic in nature and reveals the logical connection between them. A comparison was made between the data from our own research and the similar results found in the literature. The conclusions made are reliable and largely reflect the contributions of the developed work.

## **7. Contributions and significance of the development for science and practice**

Four original contributions and three of scientific and applied nature have been formulated, which I accept. Among the original contributions of the dissertation is the first detailed study and assessment of oral pathology in drug addicts in the city of Varna.

I consider the proposed algorithm for a complex dental approach in the treatment of drug-addicted patients and a protocol for the behavior of dentists to be the most significant contribution.

The prepared questionnaire for drug addicts is also a kind of contribution to the dissertation, which provides an opportunity to assess the quality of life of these patients and how this correlates with their oral health. This can be used as a methodological tool by other researchers. Among the contributions of scientific and applied nature, I consider the most important to be the identification of risk factors in drug addicts and their relationship with oral pathology, which determines the impact of dental status on the quality of life of drug addicts..

## **8. Evaluation of the publications on the dissertation**

In connection with his dissertation, Dr. S. Chokanov has published two full-text articles in the journal of Union of scientists Varna branch. The first, published in 2018, examines the effects of long-term drug use on oral health. The second article focuses on working with drug addicts in dental practice. As the publications were made in the period 2018-2019, there is no evidence that they have been cited and their impact is yet to be assessed, but given the relevance of the topic, I assume that they will attract the attention of specialized audiences.

## 9. Personal participation of the doctoral student

The personal participation of the doctoral student in the work, the results obtained and the formulated contributions are without a doubt. I must take into account that although Dr. S. Chokanov works in the Department of Conservative Dentistry and Oral Pathology of the FDM - Varna, drug addicts are treated at the University Hospital "St. Marina LTD, which implies successful collaboration with various medical professionals and is proof of the true interdisciplinary nature of the development, and in particular the ability of the doctoral student to work in a team. Collaboration with other medical specialists (psychiatrists, infectious disease specialists) further enriches the doctoral student's knowledge and contributes both to the completeness of the work and to the competent understanding and interpretation of this complex issue.

## 10. Abstract

The presented abstract reflects in a synthesized form the structure and content of the dissertation.

## 11. Critical remarks and recommendations

As the doctoral program has some time constraints that do not allow to observe and analyze the patients included in the study for a longer period of time, some of the conclusions may be adjusted. In this sense, I recommend Dr. S. Chokanov to continue his observations on the same patients, as well as to publish periodically updated data.

## 12. Recommendations for future use of dissertation contributions and results

I believe that the doctoral student S. Chokanov, who demonstrates in his dissertation a really good knowledge of the basic methodological tools needed for the analysis of such topics, can and should continue his future research in this direction. As the most important contribution of his work, I consider the proposed algorithm for a complex dental approach in the treatment of drug addicts and a protocol for the behavior of dentists. It is desirable that it be more widespread, both among dentists treating these patients and among medical professionals. Very important for the popularization of this valuable work is the active informing of the students of dental medicine and the colleagues from the network, which can be in the form of a lecture to the program for continuing education of BDA.

## CONCLUSION

The dissertation contains scientific, scientific-applied and applied results, **which represent an original contribution to science and meet all the requirements of the law** on the development of academic staff in the republic of bulgaria, the regulations MU - Varna. The presented materials and dissertation results **fully** comply with the specific requirements of mu - varna.

The dissertation shows that the doctoral student SIMEON ZDRAVKOV CHOKANOV **has in-depth** theoretical knowledge and professional skills, **demonstrating** qualities for independent research. Due to the above, I confidently give my **positive assessment** of the research presented by the above reviewed dissertation, abstract, results and contributions, and **I invite the esteemed scientific jury to award the educational and scientific degree "Doctor"** of SIMEON ZDRAVKOV CHOKANOV in the doctoral program "Therapeutic Dentistry".

30. 03. 2022

Reviewer: 

Assoc. Prof. Dr. Georgi T. Tomov, Ph.D.