

OPINION

by

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Ref: dissertation work for the award of the educational and scientific degree "Doctor"
Area of higher education :7. Health care and sports

professional direction : 7.1 Medicine

on scientific specialty : Physiotherapy, resort therapy and rehabilitation

of **Dr. Dafina Velinova Bacheva - Chausheva**

on topic "**Rehabilitation in patients with pulmonary disease in conditions of a pandemic caused by the SARS - COV -2 coronavirus** "

Scientific supervisors: Prof. Dr. Diana Petkova Gospodinova – Valkova, MD

Assoc. Dr. Mariyana Mihaylova Krasteva – Ruseva, MD.

By Decision of the Chairman of the Scientific Jury and according to Order of the Rector of MU-Varna No. R-109-124 dated 28.03.2024 I am determined to submit an opinion on the dissertation of Dr. Dafina Velinova Bacheva - Chausheva on the topic "Rehabilitation in patients with pulmonary disease in conditions of a pandemic caused by the SARS - COV -2 coronavirus" for the awarding of an educational and scientific degree "doctor" in a scientific specialty Physical and rehabilitation medicine.

This opinion has been developed and presented in accordance with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the Rules for application of the LDASRB.

Brief biographical data of the doctoral candidate.

Dr. Dafina Velinova Bacheva - Chausheva was born on 22.09.1979. In 2004, she graduated as a Master of Medicine at the Sofia University. In 2009, she acquired a specialty in Physical and Rehabilitation Medicine.

The doctoral student began her work experience in 2007 as a resident physician at the "St. Klementina" DCC, city of Varna. In 2011, she started working at the Physiotherapy and Rehabilitation Clinic at St. Marina MPHAT, Varna , as a specialist doctor, where she has been currently working.

Since 2016, Dr. Bacheva has been an assistant at the Department of Physiotherapy, Rehabilitation, Thalassotherapy and Occupational Diseases at the Medical University - Varna.

Dr. Bacheva is a professional with in-depth knowledge in several medical fields, works excellently in a team and with people of different nationalities, religions and social strata.

Significance and relevance of the developed topic: The dissertation work of Dr. Dafina Bacheva deals with a current and important practical problem of interdisciplinary importance. Chronic diseases of the respiratory system are the cause of worsening the quality of life of patients, of mortality not only in Bulgaria, but also in a number of other countries, which is why they become a priority in most national health strategies with a focus on promotion and prevention. Respiratory rehabilitation is of utmost importance for mental and physical improvement condition of patients with chronically obstructive disease of respiratory ways. The increasing frequency of these diseases in recent decades and their diverse medico-social characteristics also explains the interest of the scientific medical community in their early detection and treatment. These days we witnessed a severe pandemic of the SARS - COV -2 Coronavirus, which often resulted in severe pneumonia and chronic damage to the respiratory system.

Volume and structure: Dr. Dafina Bacheva 's dissertation is written on 189 pages, illustrated with 23 figures, 32 tables and 6 appendices. The bibliographic list is represented by 360 sources, of which 7 are in Cyrillic and 353 in Latin. It ends with conclusions that support the need to research the dissertation topic. The issues and content of the work are dissertationable and are of interest not only to doctors specializing in Physical and Rehabilitation Medicine, but also to a wider circle of specialists in the field of recovery in patients with pulmonary diseases.

The literature review sequentially examines the importance of respiratory rehabilitation and patients needing the conduct it /chronic pulmonary diseases, pneumonia caused by COVID -19 /. Methods of respiratory rehabilitation, as well as principles and guidelines for rehabilitation of patients with COVID -19, are reviewed in detail. Critical conclusions are drawn from the literature review.

Research methodology: **The aim** of the present study was to evaluate the effectiveness of respiratory rehabilitation at hospitalized patients with COVID-19 pneumonia and respiratory failure in terms of clinical course, impact on quality of life and psycho-emotional status.

In order to achieve it, the doctoral student has defined 6 main tasks:

1. To establish the changes in the clinical symptoms in patients with COVID-19 pneumonia after respiratory rehabilitation.
2. To establish the changes in the physiological indicators and the indicators from the blood gas analysis after conducted respiratory rehabilitation.
3. To establish the changes that occur in terms of attitude on physical activity.
4. To assess the changes in the quality of life in the researched groups of patients.
5. To assess the changes in the psycho-emotional condition in the researched groups of patients.
6. To suggest a program for rehabilitation for patients with COVID-19 pneumonia in hospital settings.

The obtained results are presented in text and through 32 tables and 23 figures. The statistical treatment used is adequate. The discussion is thorough and well systematized, the own results are compared with international recommendations for the rehabilitation of persons with Covid 19 with a moderate and severe form of the disease. It is in this chapter that the good awareness and rich clinical experience of Dr. Bacheva is evident, as well as the possibilities for critical analysis of the obtained results. The presented results are completely sufficient for the implementation of the set tasks.

The conclusions are 7 in number and logically follow the obtained results. They are well worded, clear and accurate.

The exhibited contributions are 5 in number, divided into two groups:

Theoretical and methodological contributions:

1. Presented is the first study in Bulgaria for efficiency of respiratory rehabilitation for patients with COVID-19 in the acute phase of the disease in hospital settings.
2. Proven is the need for early start of rehabilitation of patients with moderate and severe course of the COVID-19 disease.
3. Motivated is the conduct of subsequent physiotherapy interventions for

patients surviving severe COVID-19 pneumonia.

Practical contributions:

1. For the first time in our country, a structured program has been introduced for rehabilitation of patients with moderate and severe course of pneumonia caused by COVID-19.
2. Created is an exemplary algorithm for rehabilitation of patients in the acute and the subacute phase of COVID-19.

Conclusion

The dissertation work of Dr. Dafina Velinova Bacheva - Chausheva contains significant and original results, which are adequately presented in Theoretical and methodological contributions and practical contributions. The developed dissertation meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) and the Regulations for the Development of the academic staff in MU – Varna.

All this gives me the reason to give a positive evaluation, for the acquisition of the educational and scientific degree "Doctor" to Dr. Dafina Velinova Bacheva-Chausheva.

17.04.2024

Compiler of the opinion:

Заличено на основание чл. 5,
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