## OPINION

by Assoc. Dr. Rosen Kalpachki, MD,
Department of Medical and Social Sciences, Southwest University - Blagoevgrad
UMBAL "St. Anna" Sofia, Clinic for Nervous Diseases

of the dissertation work of Dr. Desislava Gerasimova,
on "A CLINICAL APPROACH BASED ON THE BIOPSYCHOSOCIAL MODEL IN THE
TREATMENT OF CHRONIC CERVICAL SPINE PAIN",
presented for the acquisition of the educational and scientific degree "doctor"

Socially significant diseases have always been the focus of medicine because their social "cost" was particularly high. Today, their role is even greater, because modern society elevates the protection of individual and public health to a previously unknown pedestal and definitely seeks both to increase the length of life and to increase its quality. Chronic pain and especially that in the cervical part of the spine is a current example of a mass disease with serious social significance. From this point of view, the dissertation work presented to me for opinion examines problems of great importance and relevance.

The volume of the dissertation is 192 pages and includes an introduction, literature review, aims and objectives, material and methodology, methods of objectifying the results, results and analyses, discussion, conclusion, conclusions, contributions and appendices and literature from 175 titles, of which 29 of Cyrillic and 146 in Latin. The development is richly illustrated with 7 figures, 4 histograms, 45 charts and 47 tables, which is extremely good and sufficient. The abstract for the dissertation reflects it faithfully and accurately. It contains all own results, as well as the conclusions, recommendations and contributions of the dissertation work.

Dr. Gerasimova went into the problem extremely precisely and comprehensively. To begin with, the literature review examines almost all aspects of pain as a medical symptom, as well as anatomy and physiology of the cervical spine, etiology, diagnosis, clinic, and all methods of treatment of chronic nonspecific pain in this department. In particular, therapeutic interventions consistent with the biopsychosocial model are also examined.

The correctly formulated goals and tasks are presented un the third part and the object of the study and rather its design are described in the fourth. Research and analysis methods are the subject of the fifth part of the dissertation. The results themselves were derived from both a retrospective and an ongoing ambispective study of the same cohort - after treatment and 3 months later. I pay special attention to the wonderful impression made on me by the detailed and sustained statistical analysis. As a particularly valuable fact, I would like to note that the results of Dr. Gerasimova's study give grounds for formulating several recommendations, one of which is aimed at evaluating and tracking changes in the psycho-emotional state of patients with chronic pain in the cervical region of the spine. This provides additional guidelines for the selection and preparation of an individual therapeutic program, tailored to the specific changes that have occurred, both on a somatic and psycho-emotional level. The results of the treatment of both groups of patients once again confirm the serious, leading therapeutic effect of physiotherapy alone in chronic vertebrogenic pain.

The presentation shows a good handling of the available literature on the subject, there is a good arrangement of the presented facts and results, the key conclusions and quotations for the topic are appropriately noted. I support the conclusions drawn and the contributions made.

I allow myself to make some critical comments on the design of the dissertation:

- 1. It is linguistically more appropriate that "cervical lobe" and "spinal column" are articulated in the title.
- 2. The group of "co-analgesics" could be replaced by "drugs for the treatment of neuropathic pain", which has recently been accepted. In addition, when classifying the medications from this group, it is appropriate to write only "antidepressants", because in recent years, other drugs, not only tricyclics, have been used.
- 3. It is relevant to note whether the treatment of the patients in Experimental Group 1 represents the "standard"/"usual" treatment according to established standards in medicine.
- 4. The discussion is unnecessarily "burdened" with a detailed description of other similar studies, whose place is rather in the literature review.

It can be categorically noted that the conclusions drawn in the dissertation based on the own research represent a scientific novelty in our literature, enrich scientific knowledge and provide the necessary scientific prerequisites for developing and implementing a standard for a physiotherapy program combined with psycho-emotional methods impact on patients with chronic neck pain.

The dissertation work of Dr. Desislava Gerasimova submitted to me for my opinion is an original work that meets the minimum national requirements of the Regulations for the development of the academic staff of the Sofia University "St.Kliment Ohridski". No plagiarism.

All this gives me grounds for a positive assessment of the dissertation work and I call on the respected scientific jury to vote to award the educational and scientific degree "doctor" in area 7. Health care and sports, professional direction 7.1 Medicine to the doctoral candidate Dr. Desislava Gerasimova.

Date 25.01.2024

Signature: Assoc. Dr. Rosen Kalpachki