

Review

by Assoc. Prof. Dr Nevyana Feschieva, PhD

Of the Dissertation

"Integrative medicine - holistic conceptual model, scientific and educational approaches"

For the award of the Scientific Degree "Doctor of Science

Scientific specialty

"Social medicine and the organization of health care and pharmacy",

Professional field 7.1. *Medicine,*

In the area of higher education 7. *Healthcare and Sport*

Author: Assoc. prof. Dr Desislava Ivanova Vankova, PhD

Procedure for the public defence

The dissertation work has been discussed and referred for public defense by the Department of "Social Medicine and Health Care Organization" at the Medical University of Varna on June, 24. 2022. By Order № P-109-284/11.07.2022 of the Rector of the Medical University of Varna, I am selected as a member of the scientific jury for the public defense of the dissertation work. At the first meeting of the scientific jury on July, 14. 2022. I am assigned to write a review.

The candidate has submitted all the necessary documents for the procedure, which correspond to the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Rules for its Application and the Rules for the Development of the Academic Staff of the Medical University of Varna.

Brief data on the candidate's career development

Assoc. prof. Dr. Desislava Vankova was born on April 24, 1968 in the city of Burgas. In 1987 she graduated from the Burgas English Language School with a gold medal, and in 1993 graduated as a medical doctor (MD) at the Medical University of Varna. Master of Public Health (MPH) from the University of Maastricht, Netherlands since 1999. In 2000 she acquired a specialty in "Social Medicine and Health Care Organization". After successfully defending a dissertation on the topic: **"Health-related Quality of life in the community"** on Sept. 17, 2013, she received The educational and scientific degree Doctor (PhD). She has completed numerous qualification courses in public health, modern epidemiology, history of medicine, and health technology assessment. She has undergone trainings in alternative and complementary methods of treatment and teaching: a course in traditional Chinese medicine-introduction to acupuncture, a course in integrative oncology, certified according to the standards of the National Health Service - NHS, UK. She has a European diploma in homeopathy (2016-2019); she is a certified teacher at the German Academy of homeopathy and naturopathy. On a competitive bases, she participated in international seminars, including and as a lecturer at the "Healthy

Cities" summer school, Maastricht; EC Training Course on National Capacity Building, Pisa, Italy; in Masterclass "Health Systems in Transformation", EC, Matra project, the Netherlands.

Her professional path began in 1994, working successively in the Internal Department of the Municipal Hospital, Malko Tarnovo; primary practice and Emergency Service, Avren municipality; resident physician at HEI - Varna in the "Organizational-Information" and "Epidemiological" departments. After her studies at the University of Maastricht, she was a part-time assistant in the Department of Social Medicine and Health Care Organization at the Medical University of Varna (academic years 2000-2002). From 2001 to 2015, she worked at the GlaxoSmithKline Bulgaria, after which she has been a part of the scientific department of Medical University of Varna and a part-time assistant at the Department of Social Medicine and Health Care Organization. In July 2016, after a competition, she was appointed as a Senior assistant, and from 2018 - as an Associate professor in the same department, where she continues to work at the moment. She teaches social medicine and other disciplines of the same spectrum in Bulgarian- and English-language courses.

She participated in 10 projects: a member of the Varna application project team for the WHO "Healthy Cities" network; team leader in the preparation of the Regional Health Strategy for the fight against AIDS and other transmissible diseases, a project at UNAIDS Bulgaria (2000); in the COST project to the EU, she is an organizer and a lecturer (Summer School, 2016); in the national project "Generational models of coping with life crises: biographical, social and institutional discourses" together with a research group from Sofia University (2016-2018); participation in the team of the project "Research of occupational stress among health professionals" at "Prof. Dr. A. Zlatarov" University, Burgas; leading researcher of two projects, related to the topic of the dissertation and participant in one university research projects of the MU-Varna under the "Nauka" fund; participation in WHO project team "From linear to circular economy and health" - Bonn, 2018.

Dr. Desislava Vankova is a member of the editorial board of the scientific journal "Aesclepius", a publication of the Bulgarian Society for the History of Medicine (BDIM) and the Balkan Association for the History and Philosophy of Medicine (BAIFM). Reviewer in a number of scientific publications: Social Medicine, BMC Public health etc.

She is a member of a number of professional and scientific organizations, including: Bulgarian Medical Association; Association "Public Health - 99", Bulgarian Public Health Association (BAOZ), European Public Health Association (EUPHA), Bulgarian Scientific Society for Public Health (BNDOZ). Shee has an excellent command of English and Russian languages and at a basic level - French.

Evaluation of the dissertation

Relevance of the topic. The author's orientation to the problem of Integrative Medicine is extremely timely for several reasons:

- the introduction of the term "integrative" evokes associations of inclusion and combination of diverse areas, and this opens doors to subjective interpretations and introduces ambiguity;
- due to the genesis of the concept, there is a high probability that integrative medicine will be perceived as a combination of the methods of conventional and alternative medicine, and this is only part of the idea;
- the field is under-researched, largely unknown even to the medical community, and needs terminological clarification before it ends up with blurred boundaries, too "busy" or "looted";
- in the era of high-tech and highly specialized medicine, the need for a holistic approach to the patient is growing; it is promising to explore the possibilities of integrative medicine for the education of physicians and other medical professionals for the development of empathic, individualized care for the person, an important prerequisite for the sustainability of any healthcare system.

Prof. Vankova has the necessary educational and scientific capacity, as well as research experience to tackle this difficult task. I would also add the desire and opportunities she stated in recent years to present to the scientific community less known and even disputable problems, and the case of integrative medicine is precisely such.

Scientometric characteristics of the dissertation

The 10 publications required for participation in the procedure, required by the Regulations for the development of the academic staff at MU-Varna, are actually published in full text and are on the subject of the dissertation. Assoc. prof. Vankova is the only author or first author in 60% of the publications, which proves her high personal contribution to the presented scientific production. As a scientometric indicator, they have 188.75 points. The presented citations reflect the good distribution of the candidate's scientific results, carry 100 points and fully cover the requirements for obtaining a scientific degree "Doctor of Sciences". From the academic reference presented by the MU-Varna Library with a detailed description of the citations, it is clear that three of them are in world-renowned scientific information databases, four - in peer-reviewed monographs and three - in non-indexed peer-reviewed publications.

Descriptive characteristics of the dissertation work

The dissertation is structured classically in four chapters, well balanced in terms of volume and content: Literature overview - 38 pages; Aim, objectives, design, methodology, organization of the study - 10 pages; A holistic conceptual model. Results of own studies and discussions - 67 pages; Conclusions, recommendations and contributions - 11 pages. Contains 263 pages, of which 160 pages are actual text, 40 pages - bibliography, 63 pages - 5 appendices. Illustrated with 9 tables and 38 figures. The literature used is precisely described in the bibliographical reference, which includes 714 sources, of which 92 are in Cyrillic and 622 in Latin. According to quantitative criteria, the presented work meets all the requirements for a dissertation for the acquisition of the Doctor of Science Degree.

Qualitative characteristics of the dissertation

Evaluation of the literature review. It is developed in four paragraphs, with which Assoc. prof. Vankova directs to the problems chosen as the focus of the dissertation work. In the first part, she makes a synthesized review of key concepts and terms in various definitions of integrative medicine. Emphasizing that the integration of preventive and curative methods of conventional and alternative medicine is aimed at maximum quality and individualized medical care, the candidate expresses a definite opinion: the lack of a unified conceptual model for providing such care is logical and legitimate. It can exist and be applicable only if it is adapted to the relevant health system, national culture and traditions. Therefore, there is a niche for developing a conceptual model of integrative medicine with the potential to offer solutions to strengthen Bulgarian healthcare. In the second paragraph, Assoc. prof. Vankova presents the modern history of integrative medicine (IM) through strategic documents, events, and legal acts. The chronological continuum of the same developed by the author is her original work, a very well visualized, important research product that will be a support for future IM researchers. Her choices for the other two points of the literature review are:

- ✓ current development of scientific research in the field of IM, with an emphasis on providing reliable scientific evidence for the effectiveness and safety of CAM treatment methods and
- ✓ global and European experience in IM and CAM education.

The literature review was conceived as an overture, suggesting the topics of the actual study, but it was carried out as an independent in-depth theoretical study on more four essential problems of IM, on which it expands the existing knowledge. The author presents herself with awareness and erudition, ability to make synthesis and scientific systematization, to show personal attitude and reasoned opinion on debatable issues. This theoretical study is an indisputable novelty for the Bulgarian scientific literature, but it deserves future presentations before international scientific forums and receiving a professional evaluation for its innovative nature at an international context.

Evaluation of the aim setting and the methodology. The aim is clearly defined: research on the concept of "integrative medicine" and its place in science and education in Bulgaria. To fulfill the aim, five completely feasible objectives are set, the hypotheses of the study are presented. The mixed-method design is described in detail and the use of its integrative exploratory sequential mixed-method type, suitable for research in an innovative field such as IM, is theoretically justified, to which is added the considerable experience of the candidate in its application. The methodology of the dissertation work includes four chronologically consecutive and logically consecutive phases:

- the historical and institutional development of the IM idea and conceptual modeling;
- quantitative and qualitative study of the educational needs in the field of IM of the 4 target groups - students, GPs, pharmacists and assistant-pharmacists;
- Dynamic Delphi study;
- development of a conceptual educational model to achieve a profile of key (general) and functional (professional) competences related to IM and CAM.

All elements of the methodology are presented reasonably, in development and with attention to details - instruments for each of the phases, applied methods and organization of the overall study. The methodology is a strong point of the dissertation work, a guarantee of the validity of the results and proof of the high modern level of research skills of Assoc. prof. Vankova.

Evaluation of the results and the contributions

The own original quantitative and qualitative studies are presented in the Third Chapter, following the set objectives, and at the end they become a basis for the discussions. A theoretical achievement is the holistic conceptual model developed by the author with its five building elements: medical undergraduate education and postgraduate training, conventional Western medicine, CAM, evidence-based IM, health promotion and preventive medicine. IM is considered as a philosophy and cultural values, structure and process. In the light of values are the answers to the question of the expanding use of CAM methods. For the first time, the current situation in Bulgaria is presented with highlights and current facts related to CAM.

The presentation of the original results is done precisely, combining their quantitative characteristics with narratives (quotes) from the relevant target group, which contributes to authenticity and creates order in the abundance of data. There are no major differences between respondent groups in the conclusion that IM is still little (or not at all) known as a concept, there is a strongly declared need for information regarding CAM methods and scientific evidence of their effectiveness. An increase in the application of CAM-related techniques by respondents for personal prevention and

health maintenance was found. When presenting the results, the author maintains the neutral position of an academic researcher, which increases the credibility of the conducted studies. The results of the Delphi survey show: the experts accept the created holistic model and support the thesis that health promotion and disease prevention should be given a more significant place in Bulgarian healthcare and higher medical and health education. This is reflected in the expanded definition of IM; appropriate forms of introduction to IM in university and post-graduate studies such as free elective disciplines, topics in selected related academic disciplines and certified courses are proposed. The author's versatile awareness of ancient and modern CAM methods, world experience in scientific and educational approaches, trends in higher medical education, as well as strategic and normative documents related to IM, make the discussions richer and deeper. Based on them, relevant recommendations were formulated in three mutually complementary areas: a) at the national health-political and educational level; b) at the level of development of science in the field of IM, CAM and health promotion; c) at the institutional educational level.

Assoc. prof. Dr. Desislava Vankova successfully introduced the main terms in the field of the "integrative medicine" concept. It is to her great credit that IM in Bulgaria already has its own language, a path has been paved in terminology, the foundations have been laid on which the following studies will be based.

I fully agree with the contributions presented by the candidate.

Personal impressions of the candidate. I know Assoc. prof. Vankova as an enthusiastic university teacher and a multifaceted researcher. I understand that working on the subject of Integrative Medicine has become a cause for her. She has used her full potential to bring "order to the chaos" of facts, terms, enthusiasm and skepticism and has succeeded in creating a narrative that is rigorously scientific. Her creative spirit can be satisfied. The planned aim and objectives were fulfilled due to her consistency, systematicity and immense dedication to the scientific cause.

Prof. Dr. Vankova actively participated in national and international scientific forums and working groups in the field of the announced procedure, including as a moderator and a lecturer at scientific events.

Conclusion

The dissertation of Assoc. prof. Dr. Desislava Ivanova Vankova on the topic "Integrative medicine - holistic conceptual model, scientific and educational approaches" is characterized by wide

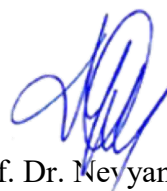
theoretical and informative bases, a logical structure, an innovative and creative approach, an introduction of new concepts adequate to the research field in focus, skilfully connecting theoretical problems with concrete steps that will bring holistic care closer to the modern man.

The dissertation and the presented publications fully meet the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its Application and the Regulations for the Development of the Academic Staff of the Medical University - Varna for the acquisition of the Doctor of Science Degree.

The innovative subject, the depth and proficiency of the dissertation work, as well as its contributions, of an original and applied nature, give me the reasons to recommend to the honourable scientific jury to award the Doctor of Science degree to Assoc. prof. Dr. Desislava Vankova in the scientific specialty "Social medicine and the organization of health care and pharmacy".

05. 08. 2022
Varna

Reviewer:



/Assoc. Prof. Dr. Neyyana Feschieva, PhD/