

## REVIEW

**BY PROF. DR TATIANA SIMEONOVA IVANOVA, PhD**  
DIRECTOR „SCIENCE AND EDUCATION“ DIRECTORATE  
IN „ACIBADEM CITICLINIC UMHAT TOKUDA“,

MEMBER OF THE SCIENTIFIC JURY ACCORDING ORDER № P-109-284/11.07.2022  
OF THE RECTOR OF THE MEDICAL UNIVERSITY "PROF. DR. PARASKEV  
STOYANOV".

**REGARDING: DISSERTATION FOR AWARDING THE SCIENTIFIC  
DEGREE "DOCTOR OF SCIENCES"**

**THEME: "INTEGRATIVE MEDICINE – A HOLISTIC CONCEPTUAL  
MODEL, SCIENTIFIC AND EDUCATIONAL APPROACHES"**

**AUTHOR: ASSOC. PROF. DR. DESISLAVA IVANOVA VANKOVA, PhD**

### 1. GENERAL INFORMATION

**The dissertation is in the higher educational field: 7. Healthcare and Sport, professional domain: 7.1 „Medicine“, scientific speciality: „Social medicine and the organization of healthcare and pharmacy“.**

The dissertation has been discussed and proposed for public defense by the Department of "Social Medicine and Health Care Organization" at the University of Medicine of Varna at a meeting of the Departmental Council on the June, 24. 2022. By Order № R 109-284/11.07.2022 of the Rector of the Medical University of Varna, based on the decision of the Faculty Council of the Faculty of Public Health (Protocol № 189/05.07.2022), I have been designated as a member of the Scientific Jury for public defense of the dissertation. At the first meeting of the Scientific Jury, I have been appointed to present a review.

The candidate Assoc. Prof. Vankova submitted all necessary documents for the procedure, corresponding to the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Application and the Regulations for the Development of the Academic Staff of the Medical University of Varna (MU-Varna).

### 2. BRIEF BIOGRAPHICAL DATA AND CAREER DEVELOPMENT

Assoc. Prof. Dr. Desislava Vankova was born on April 24, 1968 in the city of Burgas. She completed her secondary education in 1987 with full honors and a gold medal - "Geo Milev" English Language School, Burgas. She completed her higher education in medicine (MD) in 1993 from the MU - Varna. In 1999, she obtained a Master of Public Health (MPH) at the University of Maastricht, the Netherlands, and in 2001 acquired a specialty in "Social Medicine and Health Care Organization". Since 2013 she has been awarded the educational and scientific degree "Doctor" (PhD), with the topic of the dissertation work "Health-related Quality of Life in the community".

In addition to these educational achievements, Assos. Prof. Vankova also has a number of other qualifications, supported by relevant diplomas and certificates, starting from 1997 and gradually building up her wide professional capacity over the years, such as: Summer school in clinical epidemiology - Tempus project, "Healthy Cities" course - Netherlands (1999), "National

Capacity Building" course - Italy (2000), Health Systems in Transition - participant and as a lecturer (2001), from 2010-2013 in the project "Development of Human Resources" at MU-Varna, active participation in international and national workshops, as well as in a series of seminars of the Elsevier publishing house; in a Summer school on health technology assessment (HTA), courses, directly related to the current dissertation - in integrative medicine, acquisition of a European diploma in homeopathy, certified teacher at the German Academy of Homeopathy and Naturopathy, courses in integrative oncology, etc.

The professional positions held by Assoc. Prof. Vankova also show the adequate application of her consistently built remarkable professional capacity.

She started her professional activity in 1994 as a resident doctor in the Internal Department of the Municipal hospital of Malko Tarnovo, Burgas region and subsequently as a general practitioner in the of the Municipality of Avren, Varna region. From 1996 to 2011 she is first a medical doctor in social medicine and then an infectious diseases epidemiologist at HEI-Varna. In the period of 2001 until 2015 she was a key account manager at GlaxoSmithKline-Bulgaria with medical representation of various therapeutic areas; in the period 2000-2001 and 2015-2016 she was a part-time teacher, and since 2016 holds the academic position of "Chief Assistant" in social medicine and health care organization and pharmacy in the relevant department. Since 2015, she has been the head of the Scientific Department under the Deputy Rector "Science and Research" and coordinates research projects at the University, she is a member of University publishing board and of the Ethics Committee at the MU-Varna.

Currently, Dr. Vankova is an Associate Professor in the Department of Social Medicine and Healthcare Organization. The academic position "Associate Professor" was held in 2018, and until now Associate Professor Vankova has taught medical students (Bulgarian and English language courses), dental medicine (Bulgarian and English language course), midwives, nurses, optometrists, speech therapists, health care management, etc.;

She leads the lecture courses (academic year 2021/2022): "Social Medicine" for nurses; "Social Medicine and Health Promotion" for midwives; "Health promotion" for nurses; "Women's Health Promotion" for midwives; "Prevention and promotion of eye health" for optometrists; "Social Medicine" for Management of health care bachelors and masters; "Introduction to Public Health" for Speech Therapists and Health Management (Bachelors); "Epidemiology of socially significant diseases" for health management (Bachelors); Schussler Therapy for Assistant Pharmacists and Pharmacists, and others.

She has been the chairman of state examination committees for nurses and midwives in Social Medicine with health promotion, social and health legislation - since 2019 until now (including for all Affiliate structure of MU-Varna).

She is involved in the preparation of many study programs among which: "Social medicine and health promotion" - for the specialty "Midwife", OCS - bachelor; "Social Medicine" - for the specialty Nurse, Bachelor's degree; "Promotion of eye health" - for optometrists, Master degree and others.

She is supervising specialisations, and she was the scientific supervisor of two successfully defended doctoral students - Assoc. Prof. Zh. Videnova (2019) and Dr. I. Kapincheva, PhD (2021).

Assoc. Prof. Vankova is an active lecturer in the theoretical courses of the "Public Health" specialization, The medical-social and legal sciences module at MU-Varna.

She is a leader and participant in national and international research projects; member of the scientific group "Epidemiology of non-communicable diseases" at the Scientific Research Institute, MU-Varna; she participates in preparing reviews and opinions for scientific juries on competitions for academic positions defending.

As an important academic function, it should be noted her participation as a reviewer for scientifically peer-reviewed journals: BMC Public Health, Value in Health Regional Issues,

Scripta Scientifica Salutis Publicae, Zdrowie Publiczne i Zarządzanie, Social Medicine, Bulgarian Scientific Journal of Public Health/Bulgarian Journal of Public Health; "Journal of IMAB", "Asclepius" and others. Member of the Editorial Board of "Asclepius", the International Annual for History and Philosophy of Medicine, published by the Balkan Association of History and Philosophy of Medicine - since 2017. Member of the Editorial Board of Public Health Policy as Review Editor for Frontiers in PublicHealth - from 2021.

In general, Assoc. Prof. Vankova's professional academic development can be assessed as extremely successful, with in-depth development in the field of social medicine and remarkable activity in a number of interdisciplinary fields, which led to her interest in complementary and alternative medicine and the presentation of the current dissertation work.

### **3. SIGNIFICANCE AND RELEVANCE OF THE DISSERTATION**

The dissertation work is dedicated to a new and rapidly developing field on a global scale - integrative medicine. Naturally, Bulgaria has its place in this development, which necessitates the in-depth study of the problem in its entirety, as well as the paths for the development of scientific research, educational models and concrete application in practice.

The absence of national research on the knowledge attitudes, and practices (KAP) in this field focused the attention of Assoc. Prof. Vankova to the complex study of all aspects of the problem, including the need to build terminological unity, and to carry out a needs-assessment survey regarding education.

In this way, the relevance of the research problems, of the subject of this dissertation, is indisputable, since there is a new phenomenon in modern healthcare - the creation and application of integrative medicine, which requires the use of complex methods for studying the various organizational, scientific, educational and other aspects, with a view to ensuring their application in the clinical practice, in accordance with established needs.

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### **4. CHARACTERISTICS AND EVALUATION OF THE DISSERTATION**

The dissertation meets all the requirements for a dissertation to obtain the Doctor of Science degree: it includes 263 pages, it is illustrated with 9 tables, 38 figures, and 5 appendices are presented. The literature used is precisely described in the bibliographical reference. More than 700 scientific sources have been studied, and more than 85% are in Latin.

The dissertation includes: introduction, four chapters, bibliography and 5 appendices.

**Chapter One. A literature review, presented on 38 pages,** the key terms and definitions in integrative medicine are examined; the existing strategic documents and regulations related to the development of integrative medicine are thoroughly analyzed; special attention is paid to

scientific research in this area and as a logical conclusion, educational approaches in the field of integrative medicine are discussed in great detail. The conclusions of the review of the scientific literature are logical and determine the set aim and objectives.

**Chapter two. Aim, objectives, design, methodology and organization of the study** includes a well-formulated aim and appropriate objectives for its implementation. The hypotheses are very well formulated and adequate methods have been selected for their solution, united under the name "Mix-methods design".

Appropriate research instruments were used - a direct individual survey, questionnaires aimed at the four target groups (GPs, medical students, pharmacists and assistant pharmacists, pharmacy students).

The flexible application of the qualitative Delphi survey deserves high praise, with a view to achieving a consensus among experts in the field of higher education (medicine, pharmacy) and public health regarding the place of health promotion and complementary and alternative medicine (CAM) in integrative medicine and in education.

**The third chapter** is devoted to the holistic conceptual model and the results of own original research.

The extremely interesting holistic conceptual model of integrative medicine, proposed by Assoc. Prof. Vankova, includes *three main characteristics* (philosophy and values, structure, process), *5 building blocks* (medical education and postgraduate training, conventional medicine, CAM, evidence-based medicine; and health promotion and preventive medicine) and *3 universal principles* (coherence, tolerance, effectiveness and health outcomes). A pleasant impression is made by the neutral discussion, which does not impose an opinion, but consistently, through the accumulation of scientific facts and evidence, leads to well-founded conclusions and conclusions.

The results of the own research proposed in this chapter are very valuable, with well-chosen target groups, made with appropriate methods, very well processed statistically, appropriately visualized and offer rich material for discussion and for very useful specific proposals, such as the generalized and enriched definition of integrative medicine, the conceptual educational model created for the achievement of key and functional competencies related to integrative medicine, the proposed universal structural model with recommended program content by thematic areas and characteristics, and linking the proposed models from the European framework for the development of key competencies, etc. In general, the material published in this chapter can be assessed as complex, well-structured, richly illustrated and with a real capacity for theoretical conclusions and for concrete practical application.

#### **Chapter Four. Conclusions, recommendations and contributions**

The conclusions are systematized in relation to the study objectives, well formulated on the basis of the results arising from the in-depth surveys of the participants' opinions in the target groups - students and professionals, the study of the European educational and research centers in integrative medicine and CAM, the opinion of the experts from the Delphi study and the analysis of conceptual educational models and competencies.

The recommendations made can be evaluated as correctly oriented to the different levels - national, at the level of science development in the field of integrative medicine, CAM and health promotion and at the institutional educational level. The recommendations are clearly described and are primarily intended to suggest and implement possible beneficial combinations of the best in conventional medicine, CAM and health promotion.

I fully accept the contributions presented by the author, emphasizing especially the contributions of an original nature, since such research is being done for the first time in our country and for

the first time a holistic conceptual model has been developed, a basis for further development and application of integrative medicine.

A high rating can also be given to the presented terminological reference book on integrative medicine, which is of universal application.

The presented educational models are extremely useful and outline the framework of the educational modules in integrative medicine and CAM.

The contributions of a practically applied nature also deserve a high evaluation, especially regarding the thorough assessment of the educational needs in the field of CAM and integrative medicine, which is also being done for the first time in our country and brings us closer to the European requirements in this area.

## **5. RESUME OF THE DISSERTATION (AVTOREFERAT).**

The resume of the dissertation is written on 99 pages and fully reflects what is written in the dissertation work.

## **6. SCIENTOMETRIC ANALYSIS OF THE DISSERTATION WITH REGARD TO THE FULFILLMENT OF MINIMUM REQUIREMENTS**

In connection with the dissertation work, Assoc. Prof. Vankova presents the necessary **10 full-text publications** - in 3 of them she is an independent author; in 4 - first author; in 3 - second author, which exceeds the requirements of item Г5-9 - 188.75 points, out of the required 100 points.

## **CONCLUSION**

The dissertation, documents and references presented by Assoc. Prof. Dr. Desislava Ivanova Vankova, PhD, show that all the requirements of the Law for Development of the Academic Staff, of the Regulations for its application and the Regulations of MU-Varna for awarding the scientific degree "Doctor of Sciences" are fulfilled.


It should be noted the dedication of Assoc. Prof. Vankova to the problems of integrative medicine and the acquired knowledge, reflected in diplomas, certificates and personal participation in a number of projects and initiatives.

The scientific guidance of the two doctoral students, who developed and successfully defended dissertations in the field, is also part of this dedication and aspiration to accumulate new knowledge and offer ways for the development of integrative medicine.

Taking into account the presence of full compliance of the scientometric and other indicators of the dissertation work of Assoc. Prof. Dr. Desislava Ivanova Vankova, PhD on the topic of "Integrative medicine - holistic conceptual model, scientific and educational approaches" with the requirements of the Law for Development of the Academic Staff, and the Regulations of the Medical University of Varna, I give my positive vote with complete conviction and allow myself to recommend to the honourable members of the Scientific Jury to vote with conviction for the award of the scientific degree "Doctor of Sciences" to Associate Professor Dr. Desislava Ivanova Vankova, PhD in the higher educational field: 7. Healthcare and Sport, professional domain: 7.1 "Medicine", scientific specialty: "Social medicine and the organization of healthcare and pharmacy".

04. 08. 2022  
Sofia

Reviewer:

  
/Prof. Dr Tatiana Ivanova, PhD/