

OPINION

by **Professor Vladimir Gonchev, MD, PhD**

Head of the Department of "Internal Diseases, Pharmacology, Pediatrics, Social Medicine, Disaster Medicine, Computer Technologies and Latin Language", Faculty of Medicine at the University "Prof. Dr. Asen Zlatarov", Burgas

member of the Scientific Jury according to Order No. R-109-284/11.07.2022. of the Rector of the Medical University - Varna

Regarding: Dissertation work for the award of the scientific degree "**Doctor of Sciences**" in the scientific specialty "**Social medicine and organization of health care and pharmacy**" in the field of higher education "7. Health care and sports", professional direction "7.1. Medicine", on the topic "Integrative medicine - holistic conceptual model, scientific and educational approaches" by Associate Professor Desislava Ivanova Vankova, MD, PhD, Department of "Social Medicine and Organization of Health Care", Faculty of Public Health (FPH) of the Medical University - Varna.

Procedure of announcing the public protection

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 - Varna on 24.06.2022. By Order No. R-109-284/11.07.2022. of the Rector of the Medical University - Varna is an approved scientific jury for the public defense of the dissertation work. At a meeting of the scientific jury on 14.07.2022. I am assigned to prepare an opinion.

The candidate has 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 Rules for its Application and the Rules for the Development of the Academic Staff of the University of Medicine - Varna.

Brief data on the candidate's career development

Associate Professor Desislava Vankova is a graduate of the English Language High School in her hometown of Burgas (golden medal award). Graduated medicine in 1993 from the Medical University of Varna. In 1999 Dr. Vankova defended her Master's thesis "Public health human capacity building in Bulgaria" and became a Master of Public Health (MPH) from Maastricht University, The Netherlands. In 2001 acquired a specialty in "Social Medicine and Health Care Organization". In 2013 Dr. Vankova successfully defended a dissertation at the Medical University - Varna on the topic "Quality of life related to health in the community" and obtained the educational and scientific degree "doctor" in the scientific specialty "Social medicine and organization of health care and pharmacy".

In addition to a solid high school and university education, Associate Professor D. Vankova has over 25 years of experience as a doctor in various areas of health care - invaluable experience that has given her the opportunity to analyze from the positions of a person with practice and knowledge. She started his work experience in 1994. as a resident doctor in the Internal Department of the Municipal Hospital in the town of Malko Tarnovo, Burgas region. She successively worked as a doctor in the Center for Emergency Medical Assistance, a ward therapist (Varna region), an epidemiologist in the Hygiene and Epidemiological Inspection in Varna. She has professional experience in the pharmaceutical industry, having worked for GlaxoSmithKline - Bulgaria for more than 10 years, where he reached the position of " key account manager".

Her academic career has started in 2000, as a part-time lecturer at the Department of "Social Medicine and Organization of Health Care" (DSMHCO) at the Medical University of Varna. In 2015 started working as a part-time assistant, and after winning a competition, in 2016 holds the position of "chief assistant" in DSMHCO. Since 2018 is an Associate professor in the same department. Since 2015 and until now she is the head of the scientific department at the vice-rector "Science and Research", Medical University of Varna.

The continuing education qualification courses and short-term specializations conducted are numerous and cover various areas of social medicine. Acquaintance with the creative biography of Prof. Vankova creates the impression of a professional who has a desire for continuous development and a research interest both in innovations in health care, but also in their historical roots. She is a member of international and national scientific, non-governmental and professional organizations. Member of the Bulgarian Medical Union (BMU) from the first years of its revival at the end of the previous century.

Associate Professor Desislava Vankova is a member of the editorial board of the scientific journal "Asclepius", a publication of the Bulgarian Society for the History of Medicine and the Balkan Association for the History and Philosophy of Medicine. She is a scientific reviewer for BMC Public Health and others.

From the presented documents it can be seen that Associate Professor Desislava Vankova participated in 2 research projects on the subject of the dissertation, one of which was international.

She is fluent in English and Russian languages.

Scientometric analysis of the dissertation work

The 10 publications required for participation in the competition, required by the Regulations for the development of the academic staff at the Medical University of Varna, are actually published, full-text and on the topic of the dissertation.

The academic reference made in connection with the defense proves high scientific productivity. For participation in this procedure, the following are attached:

- Dissertation work, for obtaining the educational and scientific degree "doctor";
- Dissertation work for obtaining the scientific degree "Doctor of Sciences";
- Full-text scientific publications - a total of 10 issues, of which 1, published in scientific publications, referenced and indexed in world-famous databases with scientific information; the remaining publications were published in prestigious publications such as Asclepius (referred to in CEEOL); Izvestia, Varna branch of the Union of Scientists; Journal of Social Medicine, Scripta Scientifica Salutis Publicae, and others.

The presented citations, reflecting the scientific activity of the candidate, fully meet the requirements for obtaining the scientific degree "Doctor of Sciences".

All publications are correctly described and attached in full to the competition materials. A high personal contribution to the scientific developments and publications of the candidate, who is an independent or first author in 60% of all works, has been proven.

Structure of the dissertation

The thematic focus of Associate Professor Vankova's dissertation work is in the field of the scientific specialty "Social Medicine and Organization of Health Care and Pharmacy". The research paper is impressive in quantity and quality, with the research and applications (five in number) packed into 263 pages. There are four main chapters illustrated with 9 tables and 38 figures. The bibliographic reference includes an impressive number of 714 literary sources, of which 92 are in Cyrillic and 622 in Latin.

The development meets all the requirements for a dissertation work for obtaining the Doctor of Science degree. The literature used is precisely described in the bibliographical reference. Over 700 scientific sources examined include both classic publications in the field and the latest data from the last two years.

The Literature review (Chapter One) is well structured and analytical. The presented facts, historical events and research in the field of integrative medicine are comprehensive and attractively presented. The significance of this chapter includes the terminological introduction and clarification of basic concepts in the field of integrative health care. The current situation in worlds and on a European scale of modern scientific and educational approaches is interestingly and convincingly systematized, with specific examples, facts, clinical and public health cases also given.

In Chapter two - "Aim, tasks, design, methodology and study organization" the research methods are described precisely. The purpose and five tasks of the study are clearly formulated.

Hypotheses are formulated. The constructed mixed method design (in four phases) is adequately visualized and has created conditions for the excellent organization of the study. Proof of this is the research-related partnerships with the Student Council at the Medical University of Varna, with the Association of Medical Students in Bulgaria, with the BMU through the officially announced Facebook group "Family Doctors of Varna", with the Regional Pharmaceutical College in Varna, as well as with the Varna Regional College of the Bulgarian Association of Assistant-Pharmacists, and with the university educational platform Blackboard.

The aim of the dissertation "investigating the concept of "integrative medicine" and its place in science and education in Bulgaria" is fully achieved through the clearly formulated objectives.

The original quantitative and qualitative studies, including the conceptual model, are presented in Chapter three, and they become the basis for the in-depth and original discussions at the end. As a significant contribution, I appreciate the qualitative research in the dissertation, which allows for depth of research and gives completeness to the overall results. The application of mixed-method approaches, a "trademark" in the studies of Associate Professor D. Vankova, gives the opportunity to mix qualitative and quantitative tools to achieve a holistic "picture" of the researched area.

The scientific contributions (in Chapter four) are of a predominantly original nature - with theoretical, methodological and practical-applied significance at the national and international level.

Associate Professor Desislava Vankova successfully introduced the main terms in the field of the concept of "integrative medicine". Her work as a university lecturer, her interests in social medicine, as well as her additional specializations in public health, health technology assessment, complementary and alternative medicine, allow for depth of analysis.

Evaluation of the dissertation - relevance and significance

An up-to-date, original and in-depth, sufficient volume of scientific production with a wide thematic scope and significant practical contribution is provided. I fully accept the contributions, considering that the development is yet to be judged on merit, due to the dynamics of the field under consideration and due to the fact that many of the studies are being done for the first time in our country:

- For the first time, a holistic conceptual model has been created, which enables a more in-depth study, development and application of integrative medicine and health care;
- For the first time, an original terminological reference book on integrative medicine has been developed, which can meet both research and educational needs;
- For the first time in Bulgaria, universal educational models are being developed to serve as a basis for creating educational modules in integrative medicine and CAM.

Contributions of an original practical-applied nature are also impressive and have been reflected in the opinion. The assessment of educational needs in the field of integrative medicine is being done for the first time in our country and could be an idea for monitoring the educational needs of students and health professionals. The study of knowledge, attitudes and practices (KAP study) is recommended as the "gold standard" by the WHO for studying the real situation in a given healthcare area. It is interesting that the Dynamic Delphi was developed especially for the study, which will probably have a wide application due to the social uncertainty and the social distance imposed in recent years.

Personal comments

My professional communication with Dr. Desi Vankova began in absentia in 2002. In the period 2002-2003, under the auspices of USAID /American Agency for International Development/, I was specializing in the School of Public Health at George Washington University /University of George Washington/ in Washington DC, USA. Already at the beginning of my specialization, I was awarded a lot of attention by the academic staff of the university. According to our study and educational program /elements mandatory for American universities/ and in the process of our studies we had to develop research theses. I was asked to develop a thesis on the topic of an educational program in the field of public health for Bulgaria.

On this occasion, the Dean of the Department of Public Health, Professor Daniel Hoffman, provided me with the scientific development of Dr. Desi Vankova from 2001 at Maastricht University in the Netherlands. Her master's thesis was made available through her joint publication with Prof. Evelyne de Leeuw in one of the first "open access" journals, under the title "Public Health Human Capacity Building in Bulgaria -Theory and Application of SWOT Analysis" . The publication was referenced as a quality standard and starting point in the preparation of my thesis on the topic - "Developing the Curriculum for a Public Health Master Program to be implemented at the University of Sofia in Sofia, Bulgaria: Preliminary Steps".

I was impressed by the great thoroughness, comprehensiveness and professionalism of the examined problem in Dr. Vankova's work. Additionally, I found out the reason why it was initially awarded with such great attention and respect - it was the scientific development of Dr. Vankova, a Bulgarian doctor appreciated and known for his scientific work in international universities.

Subsequently, when I returned to Bulgaria, I sought contact with Associate Professor Desi Vankova. Our academic career met us live a few years ago at "Professor Dr. Asen Zlatarov" University in Burgas. Communication with associate professor Desi Vankova always enriches me in a professional and human aspect.

Conclusion

The dissertation work of Associate Professor Desislava Ivanova Vankova on the topic "**Integrative medicine - holistic conceptual model, scientific and educational approaches**" is well structured, with clearly defined goals and tasks. The original research design was competently and conscientiously implemented. The presentation of the results and the conclusions drawn are precisely formulated and form the basis of the dissertation contributions.

The dissertation work 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 thoroughness of the dissertation work, the innovative subject matter and the exceptional scientific value of the dissertation give me reason to recommend to the esteemed jury that the NS "Doctor of Sciences" be awarded to Associate Professor Desislava Vankova in the scientific specialty "Social Medicine and Organization of Health Care and Pharmacy".

01. 08. 2022
City of Burgas

Member of the Scientific Jury:


/Professor Vladimir Gonchev, MD, PhD/