

Review

By prof. Stoyanka Tsvyatkova Zheleva-Popova, MD, PhD, habilitated in Social medicine and Organization of Healthcare and Pharmacy, a member of the Scientific Jury according to Protocol № 222 /15.03.2024 from the Faculty Meeting of the Faculty of Public Health at Varna Medical University and to an order of the Rector № P-109-97/22.03.2024. With the decision of the Scientific Jury first meeting (Protocol №1 /02.04.2024) I was appointed to prepare a Review.

Re: Procedure for acquiring an academic position "Professor" in the area of higher education 7. Health and Sports, professional field 7.1. Medicine; specialty "Social medicine and healthcare and pharmaceutical organization" for the needs of the department of Social medicine and healthcare organization at the Faculty of Public Health, Medical University "Prof. Dr. P. Stoyanov" Varna, promulgated in State Gazette 07/ 23.01.2024.

In the present competition there is only one candidate, assoc. prof. Desislava Ivanova Vankova, M.D., PhD at the Dept. of Social medicine and healthcare organization, Medical University of Varna "Prof. Dr. P. Stoyanov", Varna. The candidate presented all necessary documents as required by the Law for 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 – Medical University-Varna.

Career profile of the candidate

Assoc. prof. Desislava Ivanova Vankova graduated the English language school "Geo Milev", Burgas with a gold medal (1989), and in 1993 "Prof. Dr. P. Stoyanov" Medical University - Varna, specialty "Medicine". In the period 1998-1999 she studied in a Master's program in public health at Maastricht University, The Netherlands, graduating with a master's thesis defense "Public health human capacity building in Bulgaria" with an MPH degree, which predetermines the direction of her future professional development. In 2001 she acquired a specialty in Social Medicine and Health Care Organization. After successfully defending her dissertation on the topic "Health-related Quality of Life in the Community", she was awarded a PhD in the scientific specialty "Social medicine and organization of health care and pharmacy" (2013). In 2023 defended a dissertation on the topic "Integrative medicine - a holistic conceptual model, scientific and educational approaches" and received the scientific degree "Doctor of Medical Sciences".

Assoc. prof. Vankova advanced her qualifications by participating in numerous courses, seminars in our country and abroad mainly in the field of clinical epidemiology, health promotion and healthy lifestyle, quality of life and subjective health, assessment of health technologies, one health and antimicrobial resistance. Assoc. prof. Vankova also participates in courses to increase her pedagogical competence (Certificates attached).

Desislava Vankova started her working career as a resident physician in the Internal Department in the Burgas and Varna regions. During the period 1997-2001 worked as an epidemiologist in the Hygiene and Epidemic Inspection - Varna - anti-epidemic control and analysis of public health. In the period 2001 - 2015, she was a Key Account Manager at GlaxoSmithKline-Bulgaria.

Her academic career started in 1999 as a part-time assistant at Medical University-Varna, and since 2016 is a chief assistant at the Department of Social Medicine and Health Care

Organization of the University of Varna. In 2018 held the academic position of "Associate Professor" in the same department where she is at the moment. The practice in the pharmaceutical business supports her work in the academic organization of clinical studies, as the head of the Scientific Department under the Vice-Rector "Science and Research" of MU-Varna, in which position she has been since 01/11/2015 (and continues).

Memberships in prestigious international networks and professional organizations: European Public Health Association; Bulgarian Medical Association; Bulgarian Public Health Association; Bulgarian Scientific Society of Public Health; Union of Scientists in Bulgaria-Varna Branch; European Society of Integrative Medicine.

Member of the editorial board of "Asclepius" magazine and a reviewer in our and international scientific journals.

Possesses a rich set of digital skills. Fluent in English and Russian and basic French.

Scientific and research activity of the candidate

According to the documents submitted for the current competition, the overall research activity of Assoc. Prof. Desislava Vankova includes:

- 111 scientific publications and reports;
- 3 European strategic research reports;
- 5 monographs:
 - Habilitation thesis / monograph "Integrative medicine: history, conceptual development, informed choice and intelligent investment in the future", Varna, 2021;
 - "Happiness, quality of life and health. A scientific study of classical philosophical principles of happiness and their evolution to an evaluation of innovative health technologies. Varna, 2016;
 - Development of integrative medicine. Concept, scientific approaches and educational models", Varna, 2023;
 - "Happiness, quality of life and health" - second revised edition, Varna, 2023;
 - Monograph chapter: "Early child development - the determinant of health and quality of life in modern society. Selected highlights of scientific research", Varna, 2023.
- Dissertation work for the acquisition of the "PhD" degree on the topic "Quality of life related to health in the community", 2013;
- Dissertation work for Scientific degree "Doctor of Medical Sciences" on the topic "Integrative medicine - holistic conceptual model, scientific and educational approaches", 2022.

(A complete list of scientific works, textbooks, etc. is presented in Appendix 1 to the CV.

A total of 52 scientific papers were submitted for the award of the title "associate professor", the title ONS "Doctor", and "Doctor of Medical Sciences".

In the current competition, Assoc. Prof. Vankova participates with 72 scientific works published in the period 2017-2023, including:

- European strategic research reports - 3 issues;
- Habilitation thesis / monograph "Integrative medicine: history, conceptual development, informed choice and intelligent investment in the future" (B3.) - 1 issue;

- Published monograph, which is not presented as the main habilitation thesis "Happiness, quality of life and health" - second revised edition, 2023 (D5.) - 1 issue;
- Book, based on the dissertation work "Development of integrative medicine. Concept, scientific approaches and educational models" 2023. (D6.) – 1 issue;
- Chapter of the collective monograph "Healthy child. Happy child. How important is it to measure the quality of life in modern society - history, models and narratives" in "Early childhood development - the determinant of health and quality of life in modern society, 2023 (D9.) - 1 issue;
- Textbooks (E20 and E21.) – 5 pieces;
- Publications and reports published in scientific issues, referred and indexed in world databases with scientific information - a total of 16, of which in (G7.) - 15 issues and 1 (presented out of the minimum scientometric requirements for holding the academic position (AP) "professor");
- Publications and reports published in non-referred journals or published in edited collective volumes total 39 issues, of which in (D8.) – 34 issues and 5 issues presented in the academic reference beyond the minimum scientometric requirements for occupying AP "professor";
- Published abstracts, partial text, in journals with IF - 3 issues.

Assoc. prof. Vankova's scientific production for participation in the current competition includes full-text publications covering the minimum scientometric requirements for occupying the academic position "professor" (27 publications); and full-text publications in scientific journals and anthologies, beyond the minimum scientometric requirements for holding the AP "professor" (6 issues).

There are 39 publications in Bulgarian, respectively 34 publications + 5 textbooks. 34 issues have been published in a foreign language (English), of which 29 publications in magazines and collections + 3 abstracts in international journals with IF + 3 European research strategic reports.

Assoc. prof. Desislava Vankova, is independent and first author in 47% of the actual works presented for the competition: as an independent author of 35 works, and in co-authorship – 37 works, of which as first author – in 9 publications; in larger author groups (incl. contributor) – 4 scientific papers. Vankova's scientific works have been published in authoritative international scientific publications, indexed in databases: BMC Public Health, European Journal of Public Health, European Journal of Integrative Medicine, Contact Lens and Anterior Eye, Proceedings of EDULEARN19, as well as in Bulgarian journals and proceedings: Journal of IMAB, News of the Union of Scientists-Varna, Social Medicine, Asklepios, Black Sea Journal of Medicine and Public Health, Varna Medical Forum, Scripta Scientifica Salutis Publicae and others. All full-text publications are attached in electronic format to the competition materials.

A proof of the significance of the candidate's scientific activity is the number of positive citations - a total of 135 D (10-12) - 1140 items, fulfilling the minimum requirements for AP "professor". Total Impact factor 14.715 - proof of the quality of scientific research and the actuality of the topic, scientific recognition of the author.

To the wide scientific activity of assoc. prof. Vankova, I also refer the serious presentation in over 100 national and international scientific forums (over 70 participations in the country and 30 abroad), which guarantees popularization of her scientific production. 53 reports and posters were presented in the country, 7 abroad, for which a list and supporting material was presented (Appendix 2 to the CV). Vankova is actively involved in project activities closely related to her scientific interests - head of 2 completed international and 3 national projects, participation in over 10 projects, 2 of which are currently active (Appendix 3 to CV). The candidate has active scientific profiles in ORCID, Scopus, Web of Science, ResearchGate and Google Scholar.

The prepared by me summary in Table 1., based on the Academic reference from the Library at the Medical University of Varna shows that the scientometric indicators of Assoc. Prof. Desislava Vankova significantly exceed the criteria provided in the Law for academic development and the Regulations of the Medical University of Varna for occupying the academic position "professor".

Table 1. Compliance with the requirements of the MU-Varna for occupying the academic position "Professor"

Groups of Indicators	Required points	Attained point by the candidate
A1. Dissertation for attaining the educational and research level - „PhD“	50	50 points
B3.Habilitation work – monograph	100	100 points
G (5-9). Published monographs] Chapter in a monograph; Referred articles; Non-referred articles.	200	1356.57 points
D (10-15). Citations reflecting the scientific activity of the candidate	100	1140 points
E (13-22). Obtained scientific degree "DSc"; Guidance of successfully defended doctoral students; Acquired medical specialty; Leadership/Participation in a national scientific or educational project; Management/Participation in an international scientific or educational project; Published university textbook.	100	595 points

The research work of Assoc. prof. Vankova combines theoretical analyzes and empirical studies. If I had to characterize it in one sentence, it would be – consistency and upgrade in research, mainly focused on little-known and innovative areas that fill gaps in the scientific literature. They are reflected in the priority thematic areas of her scientific activity

classified by the candidate and the related original, theoretical, applied and methodological contributions, which I accept. I would like to point out some of them that clearly highlight her specific research style.

I. The priority research direction, reflecting the long-term work of Assoc. Prof. Dr. Desislava Vankova, is "Health-related Quality of Life". The large part of these publications are originally linking the concepts of "happiness", "quality of life", "health" and "health promotion". [A1; Г5; Г7-10; Г8-7; Г8-14; Г8-20; Г8-24; Г8-26; Г8-28; Г8-30; Г8-32; Г9; E-18].

- The areas "quality of life", "health-related quality of life", "well-being" are clearly defined and differentiated [A1; G5; D9], which makes them applicable and cited by other researchers from the country and abroad, including in clinical medicine research.
- For the first time in our country, by using a toolkit for assessing the health-related quality of life (HrQoL), a population based study of the health status at the community level was carried out, presenting evidence of the successful implementation of the positive indicators, and in particular HrQoL for the measurement of personal and public health, assessment of health inequalities and the social progress of society.
- The term "quality of life" is methodically considered and included as part of the positive health indicators and specifically child health G5; D9] and elderly people [A1; D8-14].
- For the first time in our country, a questionnaire of the European expert group EuroQol - EQ-5D-3L - Bulgarian version was applied, which continues to be used as a routine tool for the assessment of HrQoL.
- Together with a team of researchers working in the field of artificial intelligence [D7-10], an intercriteria analysis of the quality of life was used to support decision-making related to improving the health of the elderly.
- When working together with clinicians, the need to assess subjective health in patients with chronic diseases is proven [D8-12].

II. The scientific works in the direction "Health promotion and preventive medicine" focus on new concepts and ideas for our country, which I appreciate as a contribution to stimulating the development of the theory of health promotion (HP) and its practical implementation in our country.

- The possibilities of applying the approaches of preventive medicine and health care to vulnerable groups such as the elderly and children have been investigated. The role of HP in promoting healthy aging is considered.
- A number of publications [G5; G8-27; D8-29] connect human health with the values in society, which are a protective factor for a good quality of life, respectively for health.
- In the context of the HP, the issue of practicing Bulgarian folk dances and presenting them as an academic discipline for students, ensuring good mental, physical and social health is considered [D7-9; D7-12; D7-14; D7-15; D8-33; D8-34; E14; E-18].
- Through expert research work at the international level, Assoc. prof. Vankova is a pioneer in introducing the idea of One Health in Bulgarian healthcare [D8-4; G8-2; D8-15].
- An important theoretical contribution is the conceptual presentation of the "One Health" idea in public health. Author of the first scientific publications in the field in our country [G8-4;

D8-2]. In the context of One Health, the health policy document to address antimicrobial resistance has been developed.

III. The topic "Integrative medicine - conceptual modeling and research in the field of complementary and alternative medicine (CAM)" is focusing on the integrative healthcare as an opportunity to achieve better health of the population through a balanced and personally oriented application of all known scientifically proven methods for treatment, prevention and promotion. Against the background of the recent media debates about the application of alternative treatment methods, I would like to point out that Assoc. prof. Desislava Vankova, from the position of research neutrality, considers and develops integrative medicine in a much wider spectrum as a new medical-social category, which has yet to be studied. Research in this area is reflected in a large volume of works: habilitation monograph [B3], dissertation of Assoc. Prof. Vankova for the acquisition of the Doctor of Sciences degree [E13], in a book based on a defended dissertation work [D6], as well as in a considerable number of other publications [D5; G7-1; G7-7; D7-8; G8-1; G8-3; D8-11; G8-13; G8-14; G8-16; G8-17; G8-18; G8-19; D8-22].

In the presented papers on this direction there are **important original theoretical and applied contributions**:

- On the basis of the first study in our country of the concept of "integrative medicine", as a holistic idea, a holistic conceptual model was created, allowing a more in-depth study and application of integrative medicine and healthcare [B3; E13; D6].
- An important contribution is the improved and expanded definition of integrative medicine, which is an urgent necessity for modern health care and helps to clarify terminology and achieve unity in the perception of the concept in Bulgaria, as well as to include "health promotion" to the possible approaches in favor of of health and integrative healthcare.
- The provided Delphi-survey model and the application of an integrative sequential mixed-method design in the first study of educational needs in the field of integrative medicine (IM) through the study of knowledge, attitudes and practices, allows the assessment of the real situation, continuous monitoring, which has important scientific, practical and methodological contribution.
- A Universal Educational Model for Integrative Medicine and CAM has been created, allowing for specific adaptation, as well as a competence profile for IM.
- An original Terminology reference book on integrative medicine was developed to support science and education in the field, developed as a teaching aid [E13; E21], as well as a Taxonomic Framework, for the development of specific programs.

IV. Education and research. Methodology and application.

As an academic educator, Assoc. prof. Desislava Vankova's interest in education, academic writing, especially methods and models of teaching and scientometrics is logical.

- From the position of her professional experience, Associate Professor Desislava Vankova analyzes the development of public health education.
- The comprehensive SWOT-analysis of public health education in Bulgaria in 2001 has been cited many times and used in scientific studies abroad and in our country.

- An innovative teaching model with an original character has been created [G8-23], which finds application in many areas of higher and secondary education in our country [G8-8; G8-23; D8-5].
- Assoc. prof. Desislava Vankova is the author who introduced mixed-methods approaches as a term and application in social medicine and in public health care in our country; applies qualitative methods in field research in a number of projects; develops the application of narrative medicine.

In conclusion, Desislava Vankova is a very original and avantgarde researcher and author. Her favorite topics - quality of life and health, integrative medicine - expand and enrich the field of scientific activity not only of the Department where she works, but are also a significant contribution to the development of the theory and practice of social medicine.

Educational and teaching activities of the candidate.

Assoc.prof. Desislava Vankova is an established and respected teacher in the field of social medicine and public health with over 10 years of teaching experience. She successively held the positions of part-time assistant, chief assistant, associate professor. Delivers lecture courses to students from various specialties and OKS: "medicine" (English language course); "nurse", "midwife", "speech therapy", "kinesitherapy" and "optometry", "health management", "health care management" in the discipline "Social Medicine"; as well as courses in "Social medicine and health promotion" for the specialty "midwife", "Promotion of eye health" for "optometrist", Master degree.

The courses are adapted to the relevant specialty. Her educational and teaching activities also include conducting seminar exercises for students of Medicine (BEO and AEO), Pharmacy and Pharmacist Assistant. Participates in the development of study programs in all the above disciplines.

In 2023 actively participates in the innovative Master's program of MU-Varna "Artificial Intelligence in Healthcare" with the development of the course „Preventive care, Health Promotion and Artificial Intelligence”.

Participation in state examination boards for the specialty "Medicine", as well as in the preparation of trainees in the sixth year.

Member of the Midwife Program Board. Since 2019 she has been the Chairman of the State Examination Commissions for Social Medicine and Health Promotion, and for Social and Health Legislation for the "nurse" and "midwife" specialties.

Assoc. prof. Desislava Vankova is the supervisor of specialists and doctoral students enrolled in the scientific direction "Social Medicine and Organization of Health Care and Pharmacy" and "Public Health Management". She is the supervisor of two specialists in "Social Medicine and Health Management"; responsible for a basic course in "Social Medicine and Health Management"; lecturer in theoretical courses for continuing education. She has two successfully defended PhD students in Social Medicine and Health Organization and Pharmacy and Public Health Management PhD program and currently supervises four full-time PhD students.

Assoc. prof. Vankova has very successful research and mentoring work with students, realized joint publications and participations (the activity is reflected in Appendix 3 to the CV). A total of 6 textbooks and teaching materials on social medicine and health promotion for "nurse" and "midwife" students have been developed and published (5 of which are included in the competition for professorship), two of which also have electronic versions.

"Brief terminological guide of the 21st century" was published, MU-Varna Publishing House, 2022.

The candidate has a high study load - a total of between 320-380 hours per year for the last 4 years, including between 116 and 275 hours of lectures and between 60 and 160 hours of exercises (AEO).

The above indisputably shows the development of the educational and teaching activities of assoc. prof. Vankova and the accumulated pedagogical experience.

Expert activity:

Assoc. prof. Vankova has a wide range of expert activities as a member of the Committee on Ethics at University Hospital "Sveta Marina", Varna (2018-2022) and the Committee on Ethics of Scientific Research at the MU - Varna (2020 - ongoing); member of the EUPHA Working Group on Access to Medicine; expert at the European Commission for project activities (since 2020); expert in national health technology assessment commissions (2016-2019). She also participated as an expert in the preparation of European health policy strategies, which ended with the publication of final strategies (listed in the academic reference under numbers E17 and E19).

Desislava Vankova has been the head of the Scientific Department, coordinating the research projects since 2015 at the Medical University of Varna.

Conclusion: With her rich scientific research activity, characterized by thoroughness and consistency, high erudition and innovative thinking of a teacher in the field of social medicine, with her extensive expert activity and membership in a number of scientific organizations and editorial boards in our and international scientific journals, assoc. prof. Desislava Vankova meets and significantly exceeds the requirements of the Law for the academic development, the Regulations for its implementation and the criteria provided for in the PRAS of MU-Varna for occupying the academic position "Professor".

Based on my positive assessment of the overall teaching, scientific, expert, and public activity, **I confidently give my positive vote and propose to the respected Scientific Jury to vote positively assoc. prof. Desislava Ivanova Vankova MD, MPH, PhD, DSc to occupy the academic position "professor" in the scientific specialty "Social Medicine and Organization of Health Care and Pharmacy" for the needs of the Department of Social Medicine and Organization of Health Care at the Faculty of Public Health of Medical University of Varna.**

Date: 19.05.2015

JURY MEMBER:

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

/Prof. St. Popova, doctor/