

REVIEW

**by Prof. Tsveta Yordanova Zafirova, PhD, University of Economics - Varna
of PhD thesis for obtaining an educational and scientific degree "Doctor"**

in the higher education field 3. *Social, Economic and Legal Sciences*, professional field 3.7 *Administration and Management*, a doctoral programme in *Organisation and Management outside the Sphere of Material Production (in Health Care)*

Author: Valeriya Veselinova Nikolova

Topic: System of indicators for measuring and evaluating the quality of health care in Bulgaria

Scientific supervisor. Prof. Antoniya Dimova, PhD

1. General description of the submitted materials

By the Order No. P-109-194/28.04.2022 of the Rector of the Medical University "Prof. Dr Paraskev Stoyanov" I have been appointed as a member of the scientific jury for the defence of a PhD thesis entitled "System of indicators for measuring and evaluating the quality of health care in Bulgaria" for awarding educational and scientific degree "Doctor" in the field of higher education 3. *Social, Economic and Legal Sciences*, professional field 3.7 *Administration and Management*, doctoral program *Organisation and Management outside the Sphere of Material Production (in Health Care)*. The PhD thesis author is Valeriya Veselinova Nikolova - PhD student in full-time study at the Department of Health Economics and Management with scientific supervisor Prof. Antonia Dimova, PhD.

The set of materials submitted by Valeria Nikolova is in accordance with the Regulations for the Development of the Academic Staff of MU "Prof. Dr P. Stoyanov" and includes the following documents:

- application to the Rector of MU-Varna for disclosure of the defence procedure;
- CV;
- a notarized copy of a higher education diploma (Master's degree);
- orders for enrolment and disenrolment in the doctoral study;
- protocols for passing doctoral exams;
- Departmental Council minutes for preliminary discussion of the dissertation and readiness for public PhD defence;

- dissertation;
- PhD abstract;
- copies of scientific publications on the topic;
- certificates for participation in conferences and a course in Quality Management in Healthcare;
- a declaration of originality of the thesis;
- a declaration of the authenticity of the documents submitted for the defence;
- registration of profiles in scientific databases.

2. Brief information about the PhD candidate

Valeriya Nikolova graduated bachelor's in Healthcare Management in 2012 and a master's in Pharmaceutical Management in 2015 from the Medical University "Prof. Dr P. Stoyanov" - Varna. After graduation, she worked as a medical representative at ABO Pharma until 2016 and as a curriculum and program organiser at MU-Varna until 2017. In 2017, she won a competition for an assistant professor at the Department of Health Economics and Management.

In 2019, she was enrolled as a full-time PhD student in the doctoral program "*Organization and Management outside of Material Production (in Healthcare)*". In 2022, she was granted the right of public defence. She has taught seminars in *Management Theory, Introduction to Healthcare Management, Health System Organization, Quality Management in Healthcare, Change Management in Healthcare, Human Resource Management, Organisational Behavior and Leadership* in Healthcare Management, Pharmaceutical Management, Optometrist, Information Technology in Healthcare, and other specialties.

She speaks English (B1) and is a member of the Bulgarian Scientific Society of Public Health.

3. Relevance of the subject and appropriateness of the goal and objectives

Quality management of healthcare in Bulgaria has been a problem for many years. It is particularly relevant at present when market relations are rapidly developing in the sector. In order to achieve the desired health outcomes, quality must be adequately managed. The basis of this management is establishing a system of indicators for measurement and evaluation. It will help make appropriate management decisions to ensure the quality of health services.

The above arguments determine the degree of significance of the topic chosen by the PhD candidate. The lack of similar comprehensive studies related to the systematic measurement and evaluation of the quality of healthcare in Bulgaria has provoked the scientific interest of Valeria Nikolova.

The relevance is argued thoroughly enough, clearly indicating the research problem. The determined set of objectives is directed to achieving the aim of the study - *"to create a system of criteria and indicators for measuring and evaluating the quality of healthcare in Bulgaria, which will provide systematically and appropriately the information necessary for effective quality management at the national level and the level of health care establishments and to meet the information needs of patients, medical professionals and society as a whole"*.

4. Awareness of the research problem

Valeria Nikolova demonstrates an excellent awareness of the research problem both with the formulated and justified research thesis and the study's structure and content. The dissertation topic is formulated accurately and is adequate to the research's thesis, subject, object, aim, and objectives.

The excellent awareness of the scientific literature on the research problem, current legislation, and methods and approaches for scientific research is remarkable.

5. Research methodology

The chosen approach and methodology of the study allow the achievement of the aim the objectives of the study. Considering the structure of the thesis, they are appropriately selected and implemented. In addition, in proving the central thesis of the dissertation, a sociological method has been applied to investigate the attitudes, perceptions and information needs of citizens and medical professionals regarding the measurement and evaluation of quality.

Questions of theoretical and methodological nature are studied. The PhD candidate demonstrates excellent skills to analyse, systematise and evaluate.

6. Characteristics and evaluation of the thesis

The PhD thesis is structured in an introduction, four chapters, a conclusion, a list of references and eight appendices with 182 pages. The bibliography includes 147 publications and 28 regulations. The main text (130 pages) contains 26 tables and 32 figures. Based on the above general presentation of the volume and structure, the thesis complies with the requirements of Article 27(2) of the Regulations for the Application of the Law on the Development of the Academic Staff in the Republic of Bulgaria.

The individual sections (chapters and paragraphs) are presented in a logical sequence and serve to develop and propose a system of indicators for measuring and evaluating the quality of healthcare in Bulgaria. The citation is correct, and the style is scientific.

The **introduction** contains all necessary and required components that are well formulated and logically structured. The relevance and importance of the research topic are

demonstrated. The research's subject, object, and tasks are logically related to the aim and followed throughout the dissertation. The formulated limitations specify the scope, content and applied research methods.

I appreciate as appropriate the choice of theoretical foundation presented in **chapter one**. A sufficient amount of specialised literature has been analysed, and the essential interpretations reflecting the subject of the study have been synthesised. The main concepts of quality of and in healthcare are clarified, and the levels in defining the quality are distinguished. The dimensions of quality of medical care are systematised and classified according to different criteria. Particular attention is paid to the tools for measuring and evaluating health care quality internationally. The author demonstrates excellent knowledge of the specialised literature in the field and the ability to formulate conclusions and generalisations.

The **second chapter** presents the results of the legal framework analysis, which are systematised according to different criteria. The practices of measuring and evaluating the quality of health care in Bulgaria are studied from a historical perspective. Based on an analysis of publicly available national and international databases, an assessment of current regulations is made to systematise the available data and highlight the shortcomings. As a result, two main problems in this area are highlighted - scarcity and suspected inaccuracy of available information - and the author expresses well-founded critical opinions on the studied issues.

In the **third chapter**, the PhD candidate puts into practice the chosen research methods, conducting two sociological surveys. The first one is the citizens' opinion on the quality of healthcare in Bulgaria and the need for information. The focus of the second survey, apart from the opinion of medical professionals on the quality of healthcare, is on the measures that should be used to evaluate the health system. Valeria Nikolova shows skills in framing and presenting research results logically and visually, making generalisations, and arguing practical recommendations. The methods applied for analysis and evaluation show a strong knowledge in the field.

Different sociological surveys guarantee the reliability of the results obtained, based on which generalisations are derived and systematised in three groups: assessment of the quality of health care, quality measures and attitudes towards quality measurement. This provides a practical orientation and applicability of the formulated conclusions, which is one of the research contributions.

In the **fourth chapter**, the author, as a result of the analysis of the specialised literature and the regulatory framework in the field, proposes a conceptual model of the system for measuring and evaluating the quality of healthcare in Bulgaria, as well as a set of criteria and indicators systematised by quality components. The possibility of changing the quality measures depending on the needs without changing the integrity and systematicity of its assessment is proved. An approach for implementing the conceptual model in our health care system is proposed, proving its practical applicability.

In **conclusion**, the benefits of the results obtained in the thesis are highlighted, and the conclusion is argued that the development of an effective system of indicators for measuring and evaluating the quality of healthcare in Bulgaria and for its successful implementation in practice is necessary to involve a wide range of stakeholders.

In **summary**, it can be pointed out that the PhD thesis of Valeria Nikolova is a complete scientific study of an actual and significant problem for Bulgarian health care management. As for its solution is proposed a reasoned system of indicators for measurement and evaluation of health care quality in Bulgaria.

7. Contributions and significance of the PhD thesis for the science and practice

The main contributions of Valeria Nikolova's dissertation can be defined as scientific and applied. They represent a further development and enrichment of the methodology for measuring and evaluating the quality of healthcare in Bulgaria.

A. Scientific contributions

- The theory of healthcare quality is further developed through new systematisations, classifications, relationships and dependencies between different concepts related to the different levels of their definition.

- Based on the classical and modern concepts, national and global practices and the regulatory framework in the field, a conceptual model for measuring and evaluating the quality of healthcare in Bulgaria and a system of indicators for measuring is developed.

B. Scientific and applied contributions

- As a result of studies conducted among citizens and medical professionals on the quality of healthcare in Bulgaria, their perceptions and attitudes towards its measurement have been determined, and their information needs have been identified.

- The opportunities for measuring and evaluating the quality of healthcare in Bulgaria are assessed, and the need for change is justified.

- Recommendations, both methodological and practical, are proposed to implement the system for measurement and evaluation of the quality of healthcare in Bulgaria.

The above contributions reflect Valeria Nikolova's dissertation's main achievements and results.

8. Assessment of the publications on the PhD thesis

The PhD candidate has attached copies of 3 publications - one article and two scientific reports, including one from an international conference in Ljubljana (Slovenia). The attached publications reflect the results achieved in the PhD thesis and are related to the research problem.

9. Personal participation of the PhD student

The PhD candidate has also attached the declaration of originality of the results required by the Regulations for the Application of the Law on the Development of the Academic Staff in the Republic of Bulgaria. The thesis and abstract content confirm that they are the author's work.

10. Abstract of the PhD thesis

The abstract is 41 pages and corresponds to the content of the PhD thesis. It presents in a synthesised form the study and the achieved results. The abstract is fully compliant with the requirements for structure and content.

11. Critical comments and recommendations

I have some **remarks** and **recommendations** to the author of the thesis, which do not diminish her achieved results. They would be helpful for her future research.

- In clarifying the theoretical underpinnings of quality in health care, the opinions of various scholars should be arranged chronologically to trace their evolution in both the foreign and our specialised literature. In addition, there should be a more explicit position of the author.
- In sociological surveys, it is advisable to have working hypotheses formulated in advance to be confirmed or rejected by the results of the surveys.

I have the following **questions** for the PhD candidate:

- What is the role of economists with expertise in health economics and management in determining the indicators for measuring and evaluating the quality of healthcare in Bulgaria? In your opinion, will there be a difference in their opinions compared to those of medical professionals?

- Would the results of the empirical study among the citizens and its conclusions have changed significantly if the profile of respondents had a significantly higher percentage living in rural areas, rather than only 4.7% of the total?

- To which of the defined "quality elements" do you refer the high professionalism of the medical staff that determines the choice of a medical facility by potential patients?

12. Personal impressions

I do not know the PhD candidate personally. My impressions are only from the materials submitted for the defence.

13. Recommendations for future development of the contributions and results

It is recommendable that the results be presented at international forums and published in international journals, including in such indexed in the renowned databases *Scopus* and *WoS*. This will provide greater visibility of the study among the scientific community.

CONCLUSION

The dissertation **contains scientific and applied results that represent an original contribution to science and meet all the requirements** of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Application and the relevant Regulations of Medical University "Prof. Dr P. Stoyanov" - Varna.

The dissertation shows that the PhD candidate Valeria Nikolova **possesses** in-depth theoretical knowledge and professional skills in the scientific specialty "*Organization and Management outside the Sphere of Material Production (in Health Care)*", **demonstrating** qualities and skills for conducting scientific research.

Due to the above, I confidently give my **positive evaluation** for the conducted research, presented by the above-reviewed dissertation, abstract, achieved results and contributions, and ***I propose to the honourable scientific jury to award Valeria Veselinova Nikolova the educational and scientific degree "Doctor" in the field of higher education 3. Social, Economic and Legal Sciences, professional field 3.7 Administration and Management, scientific specialty "Organization and Management outside the Sphere of Material Production (in Health Care)***".

10.06.2022

Reviewer:.....

(Prof. Tsveta Zafirova, PhD)