

REVIEW

**of a doctoral dissertation entitled:
“CLINICAL NURSING OBSERVATION OF PATIENTS WITH COMPLICATIONS
OF TYPE 2 DIABETES MELLITUS”**

by doctoral candidate: Yuliyana Hristova Georgieva

Assistant Professor at the Department of Health Care, Faculty of Public Health
and Health Care,
Angel Kanchev University of Ruse

for the award of the educational and scientific degree “Doctor”

in the field of higher education: *7. Health Care and Sports,*
professional field *7.4. Public Health,*
specialty: *Health Care Management*

Reviewer: Prof. Sonya Koleva Toncheva, PhD, DSc

Member of the Scientific Jury, pursuant to Order No. 109-527/23rd December, 2025 of the
Rector of the Medical University “Prof. Dr. P. Stoyanov” - Varna

Information on the Procedure

Assistant Professor Yuliyana Hristova Georgieva was enrolled as a doctoral candidate in an independent (external) form of study for the award of the educational and scientific degree “Doctor (PhD)” in the field of higher education 7. Health Care and Sports, professional field 7.4. Public Health, specialty Health Care Management, at the Department of Health Care, Shumen Affiliate of the Medical University – Varna, pursuant to Order of the Rector No. R-109-437/10th October, 2023.

On the basis of Art. 30, para. 3 of the Implementing Regulations of the Act on the Development of the Academic Staff in the Republic of Bulgaria, Art. 44, para. 2 of the Regulations for the Development of the Academic Staff of the Medical University – Varna, following the successful completion of the doctoral minimum examinations and in view of her readiness for public defense, **Yuliyana Hristova Georgieva** was disenrolled with the right to defense by Order No. R-109-527/23rd December, 2025 of the Rector of the Medical University – Varna.

The dissertation was approved and proposed for public defense by the Extended Department Council of the Department of Health Care at the Shumen Affiliate of the Medical University - Varna on 4th December, 2025.

Biographical Data and Professional Development of the Doctoral Candidate

Yuliyana Hristova was born on 29th July, 1972 in the city of Ruse. She graduated from the Post-Secondary Medical Institute in Ruse with a Nursing degree (General Profile) in 1993.

She later continued her education at Sofia University “St. Kliment Ohridski,” earning a Bachelor’s degree in Social Pedagogy (1997-2000) and a Master’s degree in Social Activities (2000–2002). In 2018, she obtained a Master’s degree in Health Care Management from the Medical University - Sofia.

Asst. Prof. Hristova began her professional career as a nurse in 1994 at the United District Hospital - Ruse, First Polyclinic. Subsequently, she worked at DCC 1 - Ruse Ltd. as a Head Nurse.

In 2021, following a competitive selection procedure, she was appointed as an Assistant Professor at Angel Kanchev University of Ruse, Faculty of Public Health and Health Care, Department of Health Care. She is involved in the practical training of students in the Nursing program, delivering practical classes in two academic disciplines - Nursing Care for Children and Adults with Disabilities and Nursing Care for Neurological Patients - and she also conducts clinical training practice in various hospital units from the 1st to the 8th semester. She has participated in international and national conferences, as well as in projects and seminars. She has had publications in the Health Care Journal and in electronic proceedings of scientific forums.

She has participated as a team member in two research projects: 1. “Development and Implementation of a Program for the Prevention of Osteoporosis” (Project No. SRF-23-FPHHC-01); 2. “Development and Study of a Comprehensive Rehabilitation Approach for the Prevention of Falls in Older and Elderly People” (Project No. SRF 2024-FPHHC-01).

Member of the Bulgarian Association of Health Professionals. Since 2020, he has been a member of the Bulgarian Association for Public Health and the European Association for Public Health. He is also a member of the Union of Scientists in Bulgaria, Ruse branch.

She speaks Russian at a basic level in terms of understanding, speaking and writing.

General Overview of the Dissertation

The dissertation submitted by Assistant Yuliyana Hristova Georgieva was developed at the Department of Health Care of the Shumen Affiliate of the Medical University – Varna. The dissertation is structured into five chapters and comprises 242 pages (270 pages in total), excluding the bibliography and appendices. It includes: 2 pages of introduction, 63 pages of literature review, 24 pages of methodology, 66 pages of results and discussion, 49 pages devoted to the integrated model, 3 pages of conclusions, recommendations, and contributions, 22 pages of bibliography, and 27 pages of appendices. A total of 28 tables, 69 figures, and 6 appendices are presented. *It is striking that the literature review is too extensive and the author’s own study results are of relatively limited volume.* A total of 249 literary sources are

cited, of which only 36 are in Cyrillic and 203 in Latin. *In this regard, a good balance between foreign and Bulgarian authors has not been achieved. The balance between the individual parts of the dissertation is also unsatisfactory, and the total volume of the dissertation is unnecessarily large, given the requirement that the work must not exceed 180 pages, which reduces the merits of the dissertation. These shortcomings could be eliminated by the author, as they were recommended during the internal defense.*

Assessment of the Topic Relevance

The topic chosen by Assistant Professor Hristova for her dissertation is important and highly relevant. It focuses on a socially significant disease with widespread prevalence, affecting both children and people of working age, and whose underestimation may lead to severe clinical outcomes and disability. As a nurse who interacts with, observes, and monitors patients with Type 2 diabetes mellitus, the author appropriately aims to clearly define the role of the nurse who can carry out clinical nursing observation of patients with complications of Type 2 diabetes mellitus in an outpatient setting.

For patients, life with Type 2 diabetes mellitus is a challenge - it requires knowledge of the disease, setting limits on the intake of various types of food, self-monitoring, controlling blood glucose levels, managing BMI, overcoming physical inactivity, and many other aspects that healthy individuals pay far less attention to. Newly diagnosed Type 2 diabetes often causes psychological trauma for patients. The period of adaptation to the disease can be prolonged. Illness and hospitalization are often critical events for patients, and the stress associated with them can affect all family members. In this context, the author seeks pathways for rapid adaptation and patient-centered work, increasing patients' capacity for self-monitoring and education in order to maintain a better quality of life, as well as identifying the opportunities and challenges faced by nurses working with patients with diabetes.

The relevance of the topic of the present dissertation is determined by the significant increase in the number of people with diabetes and the need to educate patients to manage their disease. Based on a thorough literature review, information is summarized and analyzed primarily regarding the team-based approach and the role of the nurse in applying an individualized patient-centered approach, ensuring comprehensive, continuous, and high-quality care, as well as maintaining effective communication between the patient and other members of the team - an essential prerequisite for improving the quality of health care services.

The dissertation topic is also relevant due to the fact that the author proposes a comprehensive approach that presents results related to the analysis and opportunities for

increasing patients' knowledge about the disease. In addition, the need for the application of modern innovative methods to support the process of diabetes control is highlighted.

Literature Review

The literature review is developed in a volume of 63 pages and is structured in *Chapter I*. The review is organized into four main sections addressing: the epidemiological burden and clinical significance of Type 2 diabetes mellitus - prevalence, trends, and complications; clinical nursing observation - its essence, objectives, and theoretical foundations; applicability of theoretical-conceptual models in clinical nursing observation of patients with Type 2 diabetes mellitus; and contemporary recommendations and guidelines in the management of care for Type 2 diabetes mellitus.

In the literature review, Asst. Prof. Hristova analyzes sources related to the problem addressed in the dissertation and the subsequently developed author's concept. Important conclusions are drawn from the literature review. The doctoral candidate has examined various sources concerning the role of the nurse, defining it as central and expanded in the processes of observation, early recognition of complications, patient education, and coordination of care. According to the author, the contemporary understanding of nursing observation includes analytical thinking, forecasting, and active clinical communication.

The professional competencies required of nurses providing care and managing the processes related to monitoring complications in patients with Type 2 diabetes mellitus are also discussed, along with the approaches that may be applied. The multidisciplinary approach is identified as key to the effective management of patients with complicated Type 2 diabetes mellitus, ensuring comprehensive, coordinated, and individualized care, with the nurse's role highlighted as leading. The need for individualization of therapeutic and nursing approaches, systematic monitoring of the glycemetic profile, and inclusion of nursing interventions in the prevention and control of complications is emphasized.

The presented literature review could be further developed into a "Nursing Guide for Monitoring Patients with Complications of Type 2 Diabetes Mellitus" and would be useful both for practicing nurses and for nursing students who intend to work with such patients.

Research Design

Chapter II is entitled "**Aim, Objectives, Material and Methods of the Study**". In this part of the dissertation, based on the developed literature review, the aim is defined, eight objectives and four hypotheses are formulated, and the methods for their scientific verification are specified. The author has applied a variety of methods that ensure the reliability and validity of the obtained results.

The general study population comprises 260 individuals, as well as 30 participants included in the experimental part of the study (from the total number of patients), distributed as follows:

- **Nurses** - 70 (n=70), with whom a standardized interview was conducted (Questionnaire No. 1);
- **Experts** - 10 (n=10) endocrinologists, with whom in-depth interviews were conducted (Questionnaire No. 2);
- **Patients with Type 2 diabetes mellitus** - a total of 180 individuals (n=180) over 40 years of age, who voluntarily consented to participate and independently completed a survey questionnaire;
- **Patients** - 30 (n=30) from the total number of patients. For the purposes of the experimental part of the study, two research groups were formed:
 - *First group* - Experimental Group (EG): including patients among which an outpatient blood glucose control program developed by the researcher was applied (n=15);
 - *Second group* - Control Group (CG): in which standard health care and activities related to clinical follow-up, regulated by the National Framework Contract and existing standards for outpatient medical care, were applied (n=15).

Additional instruments were developed to record the activities carried out within the framework of the experiment:

- **Health Status Monitoring Card** - used as a tool for systematic and objective assessment and follow-up of clinical indicators in patients from both the experimental group (EG) and the control group (CG);
- **Blood Glucose and Blood Pressure Self-Monitoring Diary** - completed at home by patients in the experimental group (EG) between visits.

The activities related to the dissertation were conducted in eight stages, which are described in detail in the methodology of the study.

The research instruments include two questionnaires and two survey forms developed specifically for the purposes of the dissertation research, ensuring the reliability of the applied methods. The data were processed using appropriate statistical methods.

Results

By its nature, the dissertation presents the results of the author's work. The results are presented in Chapters III and IV. Based on theoretically substantiated findings, Assistant Yuliyana Hristova proposes practical approaches to the behavior and activities of nurses in the care of patients with complications of Type 2 diabetes mellitus.

The proposed Integrated Model of Nursing Care for Patients with Complications of Type 2 Diabetes Mellitus is based on an experimental study conducted by the author with two groups of patients - 15 participants in the experimental group (EG) and 15 in the control group (CG).

In *Chapter III*, entitled “**Results and Discussion**”, professional perceptions of the role of the nurse in the care of patients with Type 2 diabetes mellitus are examined (results from a standardized interview conducted with nurses), as well as expert opinions regarding the role of the nurse in clinical monitoring and within the multidisciplinary team caring for patients with Type 2 diabetes mellitus. The opinions of patients are presented in detail, although the wording of the title of this section suggests that it would focus primarily on the views of nurses and experts.

The author concludes that patients who have active interaction with nurses express higher levels of satisfaction and greater engagement in self-management of their disease. The majority of patients report willingness to participate in nurse-led education, which indicates high motivation for involvement in educational programs and creates opportunities for the introduction of sustainable nursing interventions oriented toward self-control and prevention of complications.

Particularly important are the expert opinions of physicians with long-standing professional experience in the field of diabetes care. These opinions contribute to a deeper understanding of the nurse’s role in clinical monitoring and in the functioning of the multidisciplinary team, as well as to an assessment of the possibilities for expanding and optimizing the nursing role in contemporary practice. All interviewed physicians emphasize that nurses have the necessary potential to assume a significantly more active role in the clinical monitoring of patients with Type 2 diabetes mellitus. Experts define nurses as competent, accessible, and stable participants in long-term care: “*My experience shows that the nurse participates competently in clinical follow-up and succeeds in motivating patients to control their blood glucose...*” (n=10) (P1, P2, P3, P4, P5, P6, P7, P8, P9, P10). A high level of trust in nurses as competent members of the multidisciplinary team is confirmed.

Expert opinion unequivocally supports the development of a structured nursing program based on clinical monitoring, behavioral intervention, and active participation in the multidisciplinary team as a key element for improving control and prevention of complications in Type 2 diabetes mellitus.

Of particular interest are the results of the standardized interview with nurses, which reveal a high level of professional engagement, satisfaction with the activities performed, and

a clear awareness of their expanded role in the care of patients with Type 2 diabetes mellitus. A tendency toward a high degree of confidence in professional competence and readiness to assume additional responsibilities related to clinical monitoring and patient education is also observed.

The obtained results support the appropriateness of broader implementation of structured nursing activities for clinical monitoring and education in outpatient practice as an approach with potential to improve disease control and reduce the risk of complications in patients with Type 2 diabetes mellitus.

In *Chapter IV*, entitled “**The Nurse in the Comprehensive Monitoring of Patients with Complications of Type 2 Diabetes Mellitus - an Integrated Model and Practical Algorithm**”, the doctoral candidate proposes an Integrated Model of Nursing Care for patients with diabetes mellitus and the interventional program “I Control Diabetes” - its structure, content, and role within the integrated nursing care model.

The chapter presents the results of an experimental study that was carried out. For the purposes of the experiment, a comprehensive set of instruments was developed and applied, *including survey questionnaires, a self-monitoring diary, a health status monitoring card, and informational materials*. These instruments were created specifically for the purposes of the present study and were adapted to the characteristics of the studied population.

A Concept for the expanded nursing role in patients with Type 2 diabetes mellitus and its complications is proposed. According to the author, the core of this concept is clinical nursing observation, through which regular assessment of health status, risk factors, and patients’ behavioral characteristics is conducted. The collected information serves as a basis for planning and adapting nursing interventions aimed at education, support of self-care, and early identification of complications.

The developed **Integrated Model of Nursing Care for patients with complications of Type 2 diabetes mellitus** is innovative and represents a practical framework that integrates systematic nursing assessment, targeted interventions, continuous monitoring, and outcome evaluation, with the aim of optimizing glycemic control, limiting risk factors, and improving quality of life.

Assistant Hristova proposes the interventional program “**I Control Diabetes**”, which is designed as a comprehensive intervention system aimed at sustainable improvement of self-control, behavioral change, and quality of life in patients with Type 2 diabetes mellitus. The training is structured into five thematic modules covering the main aspects of disease self-management. It is delivered by a nurse through individual and group sessions. The merits of the

theoretically developed program is its pilot implementation within a six-month follow-up period. The doctoral candidate's practical experimental work convincingly demonstrates the possibility for its successful implementation in practice as a standard educational model. The results indicate that the most substantial contribution of the "*I Control Diabetes*" program is a statistically and clinically significant improvement in participants' level of knowledge regarding the disease and its management.

Chapter V is entitled **Conclusions, Recommendations, and Contributions**. The results of the conducted study provide grounds for formulating **nine substantial conclusions** derived from the dissertation research.

Assessment of the Contributions

The dissertation represents a first-of-its-kind, targeted, in-depth, and comprehensive study of **the significance that clinical nursing observation can have for the quality of life of patients with complications of Type 2 diabetes mellitus**.

The results of the scientific study, together with the formulated conclusions and recommendations, outline contributions of both theoretical–cognitive and applied–practical nature. From the contributions presented by the author, I accept the following:

Theoretical and Cognitive Contributions

- A conceptual model of clinical nursing observation for patients with complications of Type 2 diabetes mellitus has been developed, integrating clinical, behavioral, and psychosocial aspects into a unified and structured framework for nursing practice.
- The role of the nurse in the process of long-term monitoring, early detection of deterioration in health status, and prevention of the progression of complications has been theoretically defined and systematized.
- The relationship between levels of glycemic control, the clinical course of complications, and the need for a differentiated nursing approach based on the individual level of risk in patients with Type 2 diabetes mellitus has been theoretically justified.

Applied and Practical Contributions

- The professional activities and tasks of nurses related to comprehensive clinical monitoring, prevention of complications, and maintenance of a compensated state in patients with Type 2 diabetes mellitus have been defined and systematized.
- An original educational program entitled "*I Control Diabetes*" has been created and piloted, integrated into the process of clinical nursing observation with the aim of

improving health literacy and self-control among patients with complications of Type 2 diabetes mellitus.

- A structured nursing care model has been piloted, demonstrating a tendency toward improvement in key clinical and behavioral indicators in patients with complications of Type 2 diabetes mellitus.

The contributions that I do not accept either repeat some of those already listed or are unclear in terms of their origin, as they are not discussed in the dissertation—for example, the development of algorithms is cited as an applied contribution, although no such algorithms have been developed by the author.

In the dissertation, *recommendations and proposals* addressed to the Ministry of Health, the National Health Insurance Fund, and Medical Association *are not clearly formulated*. In my opinion, recommendations addressed to the Diabetes Association, the Autonomous Nursing Practice Association, the Bulgarian Association of Health Care Professionals, certain patient organizations, universities where nurses are trained (for the integration of the comprehensive model into educational curricula), the association of general practitioners, and others would be more useful. The formulated recommendations have a rather imperative tone, which is imposed by the doctoral candidate. There is a lack of specificity, and the addressees of the recommendations may not clearly understand their intent. In addition, the wording is overly verbose, which hinders comprehension.

The abstract reproduces the main points of the dissertation and is presented in a volume of 75 pages. Weaknesses and errors present in the dissertation have been mechanically transferred into the abstract.

The author's research portfolio currently includes a total of two scientific publications related to the dissertation, published in 2024 and 2025, thereby fulfilling the requirements of the criteria for the award of the educational and scientific degree "Doctor".

I recommend that the results of the conducted study be published in specialized scientific journals in Bulgaria and abroad, in order to make them accessible to a wider circle of health professionals from practice.

Assistant Professor **Yuliyana Hristova** meets the requirements for the award of the educational and scientific degree "Doctor" through the developed dissertation, which may be regarded as a scientific work with both theoretical and practical contributions.

I have several critical remarks: 1. Concerning the stylistic quality and scientific writing of the dissertation; 2. I find a discrepancy between the title and the content of Chapter IV; 3. There are certain ambiguities in Chapter II; 4. It is not clear to which health care institutions

the recommendations are addressed, as the experiment was conducted in an outpatient setting and therefore should be directed toward general practitioners' practices and specialized outpatient care. Inappropriate graphic design has been selected for presenting the results in a large portion of the figures in the dissertation, which makes them difficult to interpret.

The critical remarks made somewhat diminish the merits of the presented dissertation, particularly since these shortcomings were discussed during the internal defense but were not taken into account by the author.

Personal Impressions

I consider it necessary to share my personal impressions. I have known Assistant Professor **Yuliyana Hristova** since the meeting of the Department Council for enrollment in the doctoral program Health Care Management. Within a short period, I have found her to possess good communication skills, to be inquisitive, and consistent in her actions. I believe that the practical experience Assistant Professor Hristova has in working with patients with diabetes has motivated her desire to explore various approaches and good practices applied in different countries when working with patients with complications of Type 2 diabetes mellitus, and to propose an appropriate model of care for Bulgaria, taking the national context into account. Assistant Professor Hristova possesses strong teamwork skills, she is well-intentioned and oriented toward collaboration with colleagues.

Conclusion: Based on her professional development, scientific and teaching achievements, and in compliance with the criteria of the Act on the Development of the Academic Staff in the Republic of Bulgaria, its Implementing Regulations, and the Regulations for the Development of the Academic Staff at the Medical University "Prof. Dr. P. Stoyanov" - Varna, I give my positive vote and confidently propose to the esteemed Scientific Jury that the doctoral candidate **Yuliyana Hristova Georgieva** be awarded the educational and scientific degree "Doctor" in the specialty Health Care Management, for the needs of the Department of Health Care, Faculty of Public Health and Health Care, Angel Kanchev University of Ruse.

20th January, 2026

Re:

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

Prof. Sonya Toncheva, PhD, DSc