

OPINION

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Member of the Scientific Jury, pursuant to an Order of the Rector of the Medical University –
Varna.

On a dissertation for the award of the educational and scientific degree “Doctor”
in the doctoral program “Health Care Management”,
professional field 7.4 Public Health

Pursuant to Order No. R-109-527 of 23 December 2025 issued by the Rector of the Medical University - Varna, I have been elected as a member of the Scientific Jury, and on the basis of Minutes No. 1/05 January 2026, I have been designated to provide an opinion within the procedure for awarding the educational and scientific degree “Doctor” to the candidate Yuliyana Hristova Georgieva, for a dissertation entitled: “Clinical Nursing Observation of Patients with Complications of Type 2 Diabetes Mellitus”.

The candidate Yuliyana Hristova Georgieva is an Assistant at Angel Kanchev University of Ruse, Faculty of Public Health and Health Care, Department of Health Care, and a doctoral candidate in an independent form of study in the doctoral program “Health Care Management,” with scientific supervisor Prof. Silvia Borisova Dimitrova, DSc.PH.

All required documents stipulated in 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 - Varna have been duly submitted.

Biographical Data and Career Development of the Doctoral Candidate

The doctoral candidate Yuliyana Hristova Georgieva was born on 29 July 1972 in the city of Ruse. She graduated from the Post-Secondary Medical Institute “Ivan Petrovich Pavlov” in Ruse with a degree in “General Profile Nurse” in 1993. In 2000, she completed a Bachelor’s degree in “Social Pedagogy” at Sofia University “St. Kliment Ohridski,” and in 2002 she obtained a Master’s degree in “Social Activities.” During the period 2015-2018, she studied at the Medical University - Sofia, earning a Master’s degree in “Health Care Management.” Her professional career as a nurse began in 1994 at the United District Hospital - Ruse, First Polyclinic. Subsequently, she worked at “DCC 1 – Ruse” Ltd. as Head Nurse.

In 2021, following a competitive selection procedure, she was appointed as an Assistant at Angel Kanchev University of Ruse, Faculty of Public Health and Health Care, Department of “Health Care”. She participates in the education of students, prepares and delivers practical training sessions, including clinical practice and exercises in academic disciplines. She has participated in international and national conferences and has been involved in projects and

seminars. She has publications in the journal “Health Care” and in electronic proceedings of scientific forums.

In October 2023, she was enrolled as a doctoral candidate in an independent form of study in the doctoral program “Health Care Management,” with the dissertation topic “**Clinical Nursing Observation of Patients with Complications of Type 2 Diabetes Mellitus**”.

She is a member of the Bulgarian Association of Health Care Professionals. Since 2020, she has also been a member of the Bulgarian Public Health Association and the European Public Health Association.

Characteristics and Relevance of the Dissertation

The dissertation comprises 270 pages and is structured into five main chapters: a literature review reflecting the relevance of the problem; aim, objectives, material, and methodology of the study; results of the author’s own research and discussion; the role of the nurse in the comprehensive monitoring of patients with Type 2 diabetes mellitus, presenting an integrated model and practical algorithm; and a fifth chapter containing the conclusions, recommendations, and contributions.

The results are illustrated with 28 tables, 69 figures, 5 diagrams, and 6 appendices. The abstract is content-wise structured according to the chapters of the dissertation.

The bibliography includes 249 literature sources, of which 36 are in Cyrillic and 213 in Latin script.

Two survey forms, two questionnaires, the brochure “I Control Diabetes” and a Self-Monitoring Diary are included as appendices.

The dissertation was discussed and proposed for public defense by the Department Council of the Department of Health Care at the Shumen Branch of the Medical University “Prof. Dr. Paraskev Stoyanov” - Varna on 04 December 2025.

The hypotheses reflect the main assumptions regarding the impact of clinical nursing observation on self-management, quality of care, and well-being of patients with complications of Type 2 diabetes mellitus in an outpatient setting.

Four hypotheses are formulated, focusing on the relationships between clinical nursing observation and improved disease control in patients with Type 2 diabetes mellitus, as well as on the interaction of nurses with physicians and the multidisciplinary team, and on patient education and support for disease self-management.

To verify the working hypotheses, a clear aim is set-to analyze and evaluate the role of the nurse in the clinical monitoring and care of patients with complications of Type 2 diabetes mellitus in an outpatient setting (practice), with a view to improving nursing practice and enhancing patients’ self-management and quality of life. To achieve this aim, the doctoral candidate has formulated eight objectives.

The study includes a sufficiently large sample of respondents (260) to achieve statistical significance of the results, distributed into four groups:

- Nurses (70), selected on a voluntary basis in compliance with predefined inclusion criteria-professional experience in the care of patients with Type 2 diabetes mellitus, active participation in outpatient monitoring and patient counseling, and willingness to participate in the study. The respondents practice in various structures of the health care system in the Ruse region, which ensures broad representation of nursing practice in

outpatient and inpatient endocrinological care. The study includes nurses working in primary health care outpatient practices, endocrinology offices of specialized outpatient medical care and endocrinology departments and units of regional hospitals.

- Physicians - endocrinologists (experts), recognized specialists with high qualifications and practical experience in the diagnosis, monitoring, and follow-up of patients with Type 2 diabetes mellitus (10).
- A quantitative sociological survey among patients with Type 2 diabetes mellitus, aimed at examining the level of disease self-management, satisfaction with the health care provided, and perceived quality of life. The study was conducted among patients undergoing dispensary follow-up in primary outpatient medical care practices and in endocrinology offices within specialized outpatient medical care in the territory of the Ruse region. The study included patients with Type 2 diabetes mellitus aged over 40 years who voluntarily consented to participate and independently completed a questionnaire. The total number of respondents was 180.

From the participants in the quantitative study, for the purposes of the experimental part of the study, two research groups were formed:

- First group - Experimental Group (EG): including patients in whom an outpatient blood glucose control program developed by the researcher was applied (15). Within the framework of the program, patients participated in structured training conducted by a nurse, aimed at effective blood glucose control, prevention of acute and chronic complications, and development of skills for disease self-management.
- Second group - Control Group (CG): in which standard health care and dispensary follow-up activities regulated by the National Framework Contract and existing standards for outpatient medical care were applied (15).

In connection with the dissertation, two articles have been presented, published both in co-authorship and as sole-authored works.

Relevance

Type 2 diabetes mellitus is among the leading chronic non-communicable diseases worldwide and represents an increasingly serious public health problem. Its prevalence is rising in both economically developed and developing countries, affecting ever younger age groups. According to data from the World Health Organization (WHO) and the International Diabetes Federation, the incidence and mortality associated with Type 2 diabetes mellitus show a steady increase, posing significant challenges to health care systems. In Bulgaria, national data confirm a similar trend. Monitoring epidemiological indicators is essential for effective planning of prevention, early diagnosis, and clinical nursing observation of patients.

Chronic complications of diabetes affect a substantial proportion of individuals with the disease and are among the leading causes of morbidity, disability, and mortality globally. Therefore, increasing attention is being paid to the role of the nurse in care management and in supporting patients to achieve effective self-management of the disease.

The main components of effective control and management of diabetes mellitus include adherence to established principles of healthy nutrition, regular and adequate physical activity, systematic monitoring of blood glucose levels, compliance with prescribed pharmacological

therapy, and the development of sustainable skills and habits for the prevention and control of chronic complications. Of particular importance is the formation of healthy behavioral patterns and coping skills for everyday challenges related to disease self-management, which is directly aligned with the objectives of the present study.

Results of the Study

The sociological survey conducted among 180 patients shows that most patients are aware of the need for a balanced diet; however, a number of factors hinder its implementation in everyday life. Among these, financial and organizational constraints stand out.

In the analysis of the results, the doctoral candidate demonstrates a significant association between adherence to dietary and physical activity regimens and income adequacy (One-Sided $p = 0.000 < \alpha = 0.05$; $P = 95\%$), leading to the conclusion that financial capacity has a substantial impact on patient behavior in diabetes control. Correlation analysis revealed a significant relationship between income level and the ability to comply with the recommended dietary and physical activity regimen (One-Sided $p = 0.000 < \alpha = 0.05$). Patients with higher incomes more frequently report being able to maintain a balanced diet and adequately control blood glucose levels.

Educational attainment is among the key socio-demographic factors influencing health behavior and adherence to self-control recommendations in patients with Type 2 diabetes mellitus. Higher education is often associated with better awareness of risks, higher health literacy, and greater motivation to change lifestyle. The study and subsequent data analysis show that respondents with higher education demonstrate better awareness and stricter adherence to a healthy lifestyle, underscoring the role of health education in disease self-management. A statistically significant relationship is established between educational level and adherence to dietary and physical activity recommendations (One-Sided $p = 0.000 < \alpha = 0.05$; $P = 95\%$). This confirms the hypothesis that health behavior is closely related to general culture, awareness, and cognitive readiness for lifestyle change.

Chronic comorbidities exert a significant influence on the course and control of Type 2 diabetes mellitus. The presence of more than two chronic conditions in nearly two-thirds of the surveyed patients confirms the need for an integrated approach to the care of patients with Type 2 diabetes mellitus, in which the nurse plays a key role in monitoring comorbidities, observing vital signs, and coordinating interdisciplinary care.

A statistically significant relationship is found between educational level and willingness to participate in nurse-led education ($p < 0.05$). Willingness to participate in training provided by a nurse is influenced by gender and education, while age shows a borderline effect. The highest motivation is observed among women and patients with higher education, highlighting the role of health literacy and socio-cultural factors in engagement with educational interventions.

Statistical analysis establishes a high level of significance between satisfaction with the quality of health care and the level of trust in the nurse (Asymp. Sig. = $0.000 < \alpha = 0.05$; $P = 95\%$). This confirms that higher satisfaction with health care is associated with greater trust in the nurse and increased motivation to participate in nurse-led educational programs.

Within the study, the professional experience of nurses involved in the monitoring, control, and care of patients with Type 2 diabetes mellitus was analyzed, and it was demonstrated that

length of service is a leading factor in the formation of professional confidence ($\chi^2 = 16.44$, $p < 0.05$).

The opinions of physicians with long-standing professional experience in the field of diabetes care were also examined to gain a deeper understanding of the nurse's role in clinical monitoring and to assess the possibilities for expanding and optimizing the nursing role in contemporary practice.

In-depth interviews were conducted with physicians specializing in endocrinology who have direct professional experience working with patients with Type 2 diabetes mellitus and collaborating with nurses.

The developed integrated model of nursing care for patients with complications of Type 2 diabetes mellitus represents a conceptual and practical framework that brings together 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.

Within the dissertation, a set of tools has been developed to support effective monitoring, patient education, and maintenance of self-control.

The instruments have three main functions:

- structuring nursing work;
- facilitating education;
- ensuring continuity and traceability of care.

For the purposes of the experiment, a brochure was created as a practical educational material intended to support patients in the daily management of their disease. It presents key topics necessary for effective self-control in a clear, systematic, and accessible manner. The author's development of the "I Control Diabetes" program also includes a Health Status Monitoring Card - a structured document through which the nurse tracks changes in health status over a six-month period.

As a result of the implemented program, a significant positive change in dietary behavior and physical activity was observed. At the end of the intervention, 73% of participants adhered to the recommended dietary regimen, with the difference between baseline and final results being statistically significant ($P < 0.01$).

Contributions and Recommendations

The recommendations are addressed to the Ministry of Health and focus on the regulation of nursing activities related to clinical monitoring, as well as to the National Health Insurance Fund (NHIF) with regard to the inclusion and reimbursement of nursing activities related to patient education, counseling, and prevention of complications in patients with Type 2 diabetes mellitus.

The recommendations addressed to the Bulgarian Medical Association and to health care institutions are related to the implementation of the piloted nursing model in order to improve the quality of care for patients with Type 2 diabetes mellitus, which would lead to fewer complications and a better quality of life for patients.

The contributions are grouped into theoretica-cognitive and applied-practical. The piloted nursing model provides an opportunity for practical application in real outpatient clinical practice.

Conclusion

The dissertation submitted by Yuliyana Hristova Georgieva, entitled "**CLINICAL NURSING MONITORING OF PATIENTS WITH COMPLICATIONS OF TYPE 2 DIABETES**" is distinguished by originality and relevance, demonstrating the doctoral candidate's strong potential for scientific research. The collected data have been statistically processed in accordance with the defined objectives, and the conclusions and contributions are consistent with the obtained results.

The presented scientific output also reflects the doctoral candidate's research interest in patients with Type 2 diabetes mellitus and the possibilities for nurse involvement in patient education.

The dissertation meets the requirements of the Act on the Development of Academic Staff in the Republic of Bulgaria and the Regulations on the Development of Academic Staff at the Medical University - Varna. Therefore, I confidently give a **positive opinion** and propose that the esteemed members of the Scientific Jury vote **positively** for the award of the educational and scientific degree "doctor" to Yuliana Hristova Georgieva in the doctoral program "Health Care Management".

21 January 2026

Assoc. Prof. Daniela Konstantinova Draganova, Dr.PH

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