

OPINION

From Assoc. Prof. Antoniya Rumenova Kisheva, MD, PhD
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Regarding: Dissertation for the award of the scientific degree "Doctor of Science" in the field of higher education 7. Health and Sports, professional field 7.4. Public health, Doctoral program "Health care management"

Doctoral student: Maria Mladenova Georgieva, Department of Health Care, Faculty of Public Health, Medical University Varna

Dissertation title: "Health wellbeing and psychological support in patients with heart failure"

Scientific supervisor - prof. Silvia Borisova Dimitrova, Ph.D

By Order No. P-109-38/25.01.2023 of the Rector of the Medical University - Varna I have been elected as a member of the scientific jury and after its first meeting I have been appointed to prepare an opinion for the above dissertation. The presented documents correspond to the requirements of the Law for the Development of the Academic Staff in Bulgaria and the Regulations of the Ministry of Education and Science and Medical University of Varna for its implementation.

1. Biographical data and professional development

Maria Mladenova Georgieva acquired her Bachelor's degree in Health Care at Medical University - Varna in 2008 and her Master's degree in Health Care Management at the same university in 2010. Maria Georgieva's professional career started in 2009 in the neurology department of the hospital "Lukovit" as nurse, where she worked until February 2020. From February 2010 to April 2011 she was assigned to the Intensive Cardiology Clinic at the University Hospital "St. Marina" - Varna. She continued her development in the Second Clinic of Cardiology - non-invasive, where she worked initially as a nurse from 04. 2011 to 01. 2017, and from 01. 2017 until now is the senior nurse of the clinic.

From 09. 2017 until now Maria Georgieva works as a lecturer in practice at the Department of Health Care of Medical University - Varna.

Maria Georgieva's main research interests are in the field of Heart Failure. After passing an examination at the Institute of Heart Diseases at the University Hospital in. Wroclaw, Poland received a certificate of qualification in this field.

Fluent in English.

She is a member of the Bulgarian Association of Health Care Professionals and the Association of cardiovascular nursing and allied professions.

2. Relevance of the problem

Heart failure (HF) is a socially significant disease of growing importance worldwide given the ageing population and improved treatment of cardiovascular disease leading to increased survival. HF is a leading cause of morbidity, mortality, disability and impaired quality of life.

The costs associated with the diagnosis and treatment of the disease burden health systems. Patients with HF have a number of somatic and psychological comorbidities that determine prognosis and have implications for the treatment. Regular follow-up of patients allows for correcting therapy, assessing comorbidities, reducing rehospitalizations and optimizing prognosis.

A number of European countries have specialised HF clinics where different models of nursing care have been developed.

There are no separate structures for nursing care of patients with HF in Bulgaria. The problem is particularly relevant for the country as cardiovascular diseases are a leading cause of morbidity and mortality. Involving nurses in the follow-up, monitoring and education of patients is an innovative approach for the theoretical and practical development of health care professionals with the possibility of specialization and certification.

These questions direct Maria Georgieva's scientific search in the direction of their clarification. Given the clinical significance of heart failure, there is undoubtedly a need to assess the role of the nurse in disease management and patient care.

3. Structure of the dissertation

Maria Georgieva's dissertation is formatted according to the requirements. It contains 164 pages and is illustrated with 36 figures, 10 tables and 2 diagrams + 34 pages with 7 appendices. It is well structured and contains the main parts: introduction, literature review, aim, objectives and working hypotheses, material and methodology, results and discussion, challenges in nursing practice in the management of heart failure, conclusions, suggestions and contributions of the research, publications related to the topic of the thesis, bibliography and appendices.

The **literature review** is written in 48 pages. It is comprehensive and thoroughly explores the classification of HF according to various characteristics. Current epidemiological data are presented. Risk factors predisposing to HF, clinical presentation and prognosis of patients are described. The importance of hospitalizations and rehospitalizations for HF is discussed. Attention is paid to patients' quality of life, anxiety and depression as comorbidities. Space is devoted to the signs and symptoms of worsening HF. Shared international experience in nurse-led heart failure clinics.

Based on the literature review, Maria Georgieva synthesizes what role the nurse can play in the ambulatory control and monitoring of patients with HF.

The main **aim** of the research work is clearly defined: to improve the well-being and quality of life in patients with heart failure by implementing an Ambulatory Nursing Care Model. There are 9 specific **tasks** directly related to the achievement of the objective. 3 working hypotheses are formulated.

The "**Material and Methodology**" section is presented in 15 pages. 72 individuals were prospectively studied. The inclusion and exclusion criteria are specified. Two groups were included - group A - patients with HF, in whom the main organizer of the monitoring was the med. nurse (M. G.) and group B, in which the main factor in the selection, inclusion and assessment of patients with HF is a cardiologist, and the role of the nurse is supportive. The steps of the research are described. The methods used, the questionnaires and the ways of analysing the results are presented in detail.

Chapter three defines the **results** of the observation and provides an in-depth discussion. A comparative analysis of the patients according to the studied indicators is provided. Nurse-monitored safety, quality of life assessment using questionnaires, and assessment of patients'

compliance with physical activity and dietary guidelines were analyzed. A theoretical and statistical treatment of the empirical data is presented.

A special chapter is devoted to opportunities for health care professionals to participate in the management of HF and challenges in nursing practice.

13 **conclusions** are formulated, which summarize the presented results. Three **proposals** were made for targeted training, changes in regulations and the development of models for nurses' involvement in the care of patients with HF.

The **scientific contributions** are of theoretical-informative and practical-applied nature. A systematic review of the epidemiology of HF was conducted. For the first time, the management of cardiac care was studied and analyzed, and the theoretical and clinical nursing of cardiac practice was initiated. A scientific foundation is laid in nursing practice in the provision of activities and care for patients with HF, which would lead to the expansion of the theoretical and practical knowledge of health care professionals. A proprietary methodology has been developed for monitoring and assessing the condition of patients and a model has been developed for organizing nursing cardiology care in outpatient settings. Guidelines for the care of patients with HF have been developed to streamline processes in cardiac health care and a HF Checklist to provide information on patient behaviour in compliance with living with HF. For the first time in the country, a nurse-managed office for follow-up of patients with HF was established. A first-of-its-kind comprehensive, targeted and in-depth cardiology model for the care of patients with HF in an outpatient setting has been developed and implemented in practice.

The role and importance of the HF nurse as a key driver in a multidisciplinary team is outlined. Factors favoring the progression of heart failure in a specific patient are defined.

The **bibliography** includes 209 literature sources, of which 31 in Cyrillic and 178 in Latin.

4 **publications** have been submitted in connection with the thesis. The PhD student has participated in scientific events related to the topic with 4 presentations and 1 poster. The PhD work is related to a "Science" Fund project - "Improving Wellbeing and Quality of Life in Patients with Heart Failure".

4. Conclusion

Maria Georgieva's dissertation deals with a current diagnostic and therapeutic problem in the field of cardiology. A sufficient number of patients were studied. The facts presented above show that it has an original character and corresponds to the stated aim and objectives. The dissertation meets the requirements for the acquisition of the educational and scientific degree "Doctor", stipulated in the Law on Academic Staff Development at MU - Varna. I confidently give my positive evaluation and recommend to the esteemed members of the scientific jury to award Maria Mladenova Georgieva the scientific degree "Doctor" in the scientific specialty "Health Care Management".

04.04.2023

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Assoc. Prof. Dr Antoniya Kisheva, MD, PhD