

## **THESIS REVIEW/ STATEMENT**

**by Assoc. Prof. Katya Genova Eguruze, PhD**  
**Department of Health Care**  
**Faculty of Public Health**  
**Medical University - Varna**

on the dissertation paper of Maria Mladenova Georgieva

on the topic: **HEALTH WELL-BEING AND PSYCHOLOGICAL SUPPORT FOR  
PATIENTS WITH HEART FAILURE**

for the award of the educational and scientific degree "Doctor"  
field of higher education 7. Healthcare and Sport  
professional field 7.4. Public Health  
specialty Health Care Management  
with scientific supervisor prof. Silvia Borisova Dimitrova, PhD, DSc

By Order No. P-109-38/25.01.2023 of the Rector of Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, I have been elected as a member of the Scientific Jury, and on the basis of Protocol №1/01.02.2023 of the first meeting I have been appointed to prepare a thesis statement / review on the procedure for the acquisition of educational and scientific degree "Doctor" of Maria Mladenova Georgieva.

### **Details of the procedure**

Maria Mladenova Georgieva is enrolled as a full-time doctoral student in the doctoral program "Health Care Management" in the field of higher education 7. Health Care and Sport, professional field 7.4 Public Health by order No. P-109-48/01.02.2019 of the Rector of Medical University - Varna. On the basis of the report No. 102-101/13.01.2023 from prof. Silvia Borisova Dimitrova, PhD, DSc - Head of the Department of Health Care, by the decision under protocol No. 199/18.01.2023 of the FC (Faculty Council) and report No. 104-49/19.01.2023 of the Dean of the Faculty of "Public Health", she was dismissed with the right to defence of her dissertation by the order of the Rector of MU - Varna No. P-109-38 of 25.01.2023.

### **Biographical data and career development of the PhD student**

Maria Mladenova Georgieva was born on 25.03.1985. In 2008 she graduated from Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, specialty "Nurse", B.Sc./ Bachelor degree. In the period 2008-2010 she obtained a Master's degree in Health Care Management at MU-Varna.

The beginning of her professional career was in 2009 at the Lukovit Hospital, Department of Neurology. Since 2010 she started working as a nurse at the University Hospital "St. Marina"-

Varna, in the Intensive Cardiology Clinic. In the period from 2011 to 2017, she worked in the Second Clinic of Cardiology - non-invasive, where from 2017 to the present moment she is a senior nurse.

Maria Georgieva is a guest lecturer and actively participates in the practical training of students in the specialty "Nurse", Department of Health Care.

She participates in conferences and scientific forums, has publications and scientific communications related to the dissertation. She is involved in a number of continuing education courses.

The PhD student has won the project "Improvement of well-being and quality of life in patients with heart failure" under the "Science" fund, MU-Varna.

In 2023 she carried out mobility under the Erasmus+ programme at the Heart Institute of the University Hospital in Wroclaw, Poland and after the training she became the first heart failure nurse in Bulgaria.

She is fluent in English.

### **General characteristics of the dissertation**

The dissertation is presented in a total volume of 198 pages, with the standard structure for the professional field, in five chapters as follows: chapter one- Literature review - relevance of the problem; Chapter II. Objectives, tasks, material and methodology of the study; Chapter III. Results and discussion; Chapter IV. Management of heart failure - a challenge in nursing practice; Chapter V. Conclusions, suggestions and contributions. Bibliography and 7 Appendices. List of scientific publications and participation in scientific forums related to the thesis. The work is richly illustrated with 36 figures, 10 tables and 2 diagrams.

The bibliographical reference includes 209 articles, of which 31 in Cyrillic, 178 in Latin.

### **Assessment of the relevance of the topic**

The social significance of cardiovascular diseases in the world and in our country is undeniable. They are a leading cause of morbidity and mortality in both men and women. Heart failure is a complex clinical syndrome and its severity is based on the high levels of morbidity, mortality, disability in the population and has an observed adverse dynamics.

Studies related to the follow-up role of the nurse in care planning and in the treatment of patients with heart failure have highlighted the supportive nursing care that has a positive impact on improving the general condition including better quality of life of the patients. The expansion of the functions of health care professionals in the health care system requires sufficient human resources to carry out specific activities related to long-term care. The enrichment of nurses' knowledge and practical skills should focus on promotion, disease prevention, planning and individualization of nursing care. Heart failure clinics have been developed in a number of European countries and various models of specialized nursing care are being implemented.

In our country, the problem of nurse involvement in the prevention, care and treatment of cardiovascular diseases has not been studied by research teams. There are no distinct structures for providing cardiac nursing care in practice. The creation of organizational models for cardiac nursing care is an innovative approach that would positively impact health-related well-being in

patients with heart failure. This makes the topic of Maria Georgieva's dissertation significant, relevant and dissertable.

### **Evaluation of the dissertation structure**

**The literature review** is structured in ten parts that consistently and thoroughly trace the main aspects relevant to the problem studied by the PhD candidate. The analysis of the precisely selected scientific information is competently focused on the needs of the specific study.

The literature review begins with a clarification of the definitions and classification of heart failure, which brings clarity to the issues at hand.

The doctoral student has comprehensively studied and presented the risk factors predisposing to heart failure, clinical expressions and prognosis, hospitalizations and rehospitalizations associated with the disease.

Special attention is paid to the quality of life in patients with heart failure and the prerequisites for anxiety and depression in these patients.

Maria Georgieva's extensive professional experience helps to thoroughly analyze the signs and symptoms of worsening of the disease, with a focus on monitoring and assessment of the patient's condition and the need for proper management of the factors leading to worsening of heart failure.

The international experience of functioning nurse-led heart failure clinics is presented.

**The methodology of the study** was developed in detail and includes: aim, objectives, hypotheses, material and methodology, methods of the study and statistical processing of the results.

The aim of the dissertation is clearly and specifically defined: To improve the well-being and quality of life in patients with heart failure by implementing a Model of ambulatory Nursing Care. Nine tasks are outlined to achieve the goal, covering all aspects of the research work carried out by Maria Georgieva. Three working hypotheses are formulated.

The organization of the study is correctly described and includes: subject and objects of the study, clinical contingent. The inclusion and exclusion criteria for the study are defined. The study design includes a prospective and an empirical study, which are described in detail.

The instrumentation applied in the actual study was precisely selected and tailored to the specifics for data collection, and is described in detail and presented in the dissertation.

The doctoral candidate has used a wide range of methods adequate to achieve the goal: sociological methods and statistical methods of data processing and analysis.

### **Results and discussion**

The dissertation presents the results obtained from the conducted research after their statistical processing. The results are structured and logically presented in chapter three.

A comparative analysis is made by sex, age, blood pressure, heart rate, 6 MWT, laboratory parameters and ejection fractions. The study includes 72 patients with heart failure, treated in the Department of Non-Invasive Cardiology at the Second Clinic of Cardiology of the University Hospital "St. Marina"-Varna, but for various reasons 62 completed the follow-up. In

more than ¼ of the patients the outpatient cardiology care was managed by a nurse only, and in the remaining 70.8% by a medical team (cardiologist and nurse). It was found that the group of patients who were monitored by nurse alone were more often rehospitalized (19%) and had fewer deaths (4.8%), compared to the group of patients monitored by the medical team - 7.8% rehospitalized and 9.8% died.

For the purpose of the study, clinical follow-up of indicators - body weight, blood pressure, heart rate in patients with heart failure, which are important for the development of the disease, is precisely presented. The main biochemical parameters that were studied during the observation period in the patients- renal function and serum electrolytes, have not changed significantly.

In the follow-up process, it was found that the combination of medical treatment and non-pharmacological treatment, together with lifestyle modification, is of utmost importance for the successful control and remission of the disease. To a large extent, the positive results at the end of the study were also due to compliance with the prescribed diet by 78% of patients, and 62.5% complied with the prescribed exercise regimen. With regard to the effectiveness of the nurse-monitoring model and outpatient follow-up of heart failure patients, it was found that in the group that complied with the lifestyle change guidelines, all the monitored indicators were better at the end of follow-up.

During the course of the study, quality of life was assessed using the Heart Failure Questionnaire (Kansas City), GAD7 Anxiety Assessment Questionnaire, Patient Health Questionnaire - 9, PHQ - 9, Health Status Questionnaire - EQ-5D, Visual Analogue Scale (VAS), which patients have completed at the beginning and end (month 6) of the study. This provided the basis for the PhD student to comparatively analyse and assess each patient's condition before and after the care. The results indicated an improvement in the patients' quality of life over the 6 month follow-up period. Patients who were monitored by the nurse showed better quality of life according to the Health Status Questionnaire - EQ-5D.

**Chapter four, "Heart Failure Management - A Challenge in Nursing Practice",** presents a model of nursing care for patients with heart failure; a cardiac nursing office; and the nursing process in heart failure.

**Guidelines for the care of patients with heart failure** are outlined to guide the nurse's activities in assessing the patient's condition and in managing heart failure.

I give high appraisal and commend the developed **Model of Nursing Care for Patients with Heart Failure**, which includes two main packages of care that are spread over five visits, tailored to the specifics of the disease and the tools needed to assess the patient's condition. A **Heart Failure Checklist** was developed and implemented to be completed for each patient at each visit. The applied Model for outpatient nursing care in the **cardiac care office** creates the opportunity for an organization that is consistent with the competencies of nurses in our country.

Precise and of unquestionable practical value are also the **Heart Failure Patient Monitoring Card** and the **Patient Passport to support the treatment of heart failure patients**.

**Conclusions, proposals and contributions**

Specific conclusions and suggestions are given which follow logically from the preceding analysis. **Thirteen conclusions** are formulated, which accurately reflect the results obtained and show compliance with the aim and objectives of the presented dissertation.

Suggestions made to the Ministry of Health, Medical Universities and medical institutions are convincing and have specific relevance to the problem under consideration.

The contributions in this dissertation are of *theoretical-cognitive and practical-applied nature*, which I accept.

Contributions of undisputed practical-applied nature are the developed *Guidelines for the Care of Patients with Heart Failure; Heart Failure Control Checklist; Heart Failure Patient Follow-up Cabinet and Model for Cardiac Care of Heart Failure Patients in Outpatient Settings*.

In relation with the dissertation, the PhD student presents a list of publications and participation in scientific forums containing seven titles related to the topic of the dissertation work.

The author's abstract is structured as required and reliably reflects the content of the dissertation.

### **Personal impressions**

I know Maria Georgieva from the time when she was studying the specialty "Nurse" in the respective department. She is distinguished by her inquisitiveness, tolerance and honesty in relationships. I highly appreciate her continuous drive for professional development and improvement based on solid knowledge, extensive practical experience, responsibility and diligence.

### **Conclusion**


The dissertation is distinguished by its topicality, precision, high scientific and undisputed practical value.

I believe that it meets all the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for Academic Staff Development at the Medical University - Varna.

The dissertation work shows that Maria Georgieva has a thorough theoretical background and professional skills that prove her good capabilities for scientific research work.

Based on all above, I give my positive vote and confidently propose the esteemed Scientific Jury to award the degree of "**Doctor**" of Education and Science to **Maria Mladenova Georgieva** in the specialty of "Health Care Management".

23.03.2023

The review is prepared by:   
Assoc. Prof. Katya Genova, PhD