

REVIEW

by

Prof. Biyanka Lyubchova Tornyova, Ph.D.

of the dissertation

for the award of the educational and scientific degree "Doctor"

Professional field: 7.4. Public Health

Doctoral program: "Health Care Management"

Author: Ivanka Atanasova Stoyanova

Form of doctoral studies: full-time

Department: "Health Care" at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

Topic: "Cardiological Care Management in Comorbid Patients with Acute Myocardial Infarction"

Scientific supervisors: Prof. Dr. Maria Negreva, MD and Prof. Silvia Borisova, PhD

The review was prepared on the basis of Order No. R-109-475/18.12.2024 of the Rector of MU "Prof. Dr. Paraskev Stoyanov" – Varna for the admission with the right to defense and the appointment of the members of the scientific jury under the procedure.

1. General presentation of the procedure and the doctoral student

Ivanka Atanasova Stoyanova was enrolled in a full-time doctoral program at the Department of Health Care at MU "Prof. Dr. Paraskev Stoyanov" – Varna by Order No. R-109-522/01.12.2021 of the Rector of MU-Varna. In implementation of Rector's Order No. R-109-230/10.04.2023, on 25.04.2023 she successfully passed the doctoral minimum exam. By order No. R-109-475/18.12.2024, she was discharged with the right to protection.

The presented set of materials on paper and electronic media, related to and proving the procedural validity of the procedure, have been prepared precisely and thoroughly. They fully comply with the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for the Development of the Academic Staff at the Medical University - Varna.

The set of materials includes the following documents:

- application to the Rector of MU-Varna;
- autobiography;
- copy of diploma for completed Master's degree;
- order of enrollment;
- order of discharge with the right to defense;

- protocol of doctoral minimum;
- declaration of authenticity
- declaration of originality;
- proof of registration of a scientific profile in Google Scholar;
- list and copies of publications related to the topic of the dissertation.

2. Brief biographical data of the doctoral student

Ivanka Stoyanova graduated from the Vocational High School of Chemical Technologies "Prof. Dr. Asen Zlatarov" - Novi Pazar with a profile "Organization in the Production of Chemical Products" in 2008. She obtained a higher education at the "Bachelor" with a professional qualification "Nurse" at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna in 2013.

She graduated from the Master's program in 2015 in the specialty "Healthcare Management" at the Medical University - Varna with a professional qualification "Healthcare Manager and Practice Teacher".

She began her professional activity in 2013 as a nurse in the First Cardiology Clinic with ICU at the University Hospital "St. Marina" - EAD - Varna, and from 2021 to the present she has been a deputy - senior nurse in the same clinic.

Doctoral student Ivanka Stoyanova makes efforts for her professional improvement and constantly upgrades her knowledge and skills.

She is a member of the Bulgarian Association of Nursing and Health Care Professionals and holds certificates for continuing education organized by the association. She has conducted paid classes in the course "Nursing Care for Patients with Somatic Diseases". She is fluent in English (level B1) and has good computer skills.

The documents provided demonstrate the doctoral student's continuous efforts to improve her competence in her chosen professional field.

3. Relevance of the topic of the dissertation

The topic of the dissertation refers to a significant problem in modern healthcare, related to the management of cardiac care in comorbid patients with acute myocardial infarction.

Cardiovascular diseases, and in particular AMI, are a leading cause of morbidity and mortality in a global perspective, and the trend persists despite advances in medical technologies and therapeutic approaches. In the context of an aging population and an increased percentage of patients with comorbid diseases, the management of AMI and its associated complications is becoming increasingly complex and requires specific interventions and care.

The development of adapted nursing interventions in patients with acute myocardial infarction would broaden the approach to the management of care in comorbid patients. Optimizing cardiac care with a view to achieving the best clinical outcomes is an approach to increasing patient satisfaction and reducing the burden of cardiovascular diseases on the health system. Modern practices and challenges in the management of

nursing care in patients with acute myocardial infarction are of essential importance and are a prerequisite for the development of the dissertation work submitted to me for review. All the considerations set out above determine the relevance of the topic to which the doctoral student has directed her research interest.

The conducted study is a basis for improving nursing care and reassessing the role of a nurse in the management of cardiac care for comorbid patients with AMI.

4. General description and characteristics of the dissertation work

The dissertation work is presented on 240 standard pages and is illustrated with 35 figures, 18 tables and 8 appendices. Structurally, the dissertation is composed of an introduction, five chapters, including conclusions, recommendations, contributions, bibliography and appendices. Ms. Stoyanova's dissertation work is distinguished by its academic style and excellent design.

In the introduction, the doctoral student sets out the significance of the issues being developed, motivates her choice and identifies the problems that are clarified in the individual parts.

The literature review /Chapter One, pp. 9-70/ is logically structured and reflects the scientific research and professional experience of the doctoral student. This chapter is 61 pages long and is structured in 5 main subheadings. A thorough and comprehensive theoretical analysis of cardiovascular diseases and their importance in the context of comorbidities is made - impact on public health, risk factors and mechanisms of development of AMI, specific comorbid conditions. The challenges in cardiological care in comorbid patients with acute myocardial infarction are outlined. The doctoral student skillfully analyzes the significance of cardiological care and the role of the multidisciplinary team in this process.

Special attention in the literature review is paid to the management of nursing care in comorbid patients with acute myocardial infarction, and for this purpose the basic principles and standards of nursing care, as well as its planning, are examined. In an analytical plan, education as a factor for improving cardiology nursing practice; continuing education; professional behavior, skills and competencies of the cardiology nurse are discussed.

This chapter demonstrates the author's good theoretical awareness, her ability to analyze specialized literature, to rely on such concepts and theories that serve the purpose of the dissertation work. The literature review ends with a summary that confirms the relevance and significance of the dissertation work.

Doctoral student I. Stoyanova has studied authoritative sources related to the issue under consideration. They are cited objectively and correctly. Her theoretical reasoning is the result of a study of 247 literary sources, of which 6 in Cyrillic, 239 in Latin and 2 Internet resources, with most of the literary sources being from the last 10 years.

The second chapter of the dissertation "Purpose, tasks, material and methodology of the study" /71-86 pp./ is 15 pages long and contains a precise presentation of the

study design; purpose, tasks, working hypotheses, subject and object of the study; structure and volume of the sample; logical and technical units; signs of observation; methods used; place, time and stages of conducting the study.

The purpose of the dissertation work is to study and analyze the main nursing activities and their role in the management of cardiological care in comorbid patients with acute myocardial infarction in order to develop effective approaches to improve the quality, coordination and individualization of nursing care, aimed at optimizing the results and prognosis of patients.

To achieve the set goal, seven tasks have been formulated, adequate to the goal and covering all aspects of the dissertation work.

Regarding the methodology of the study, doctoral student Ivanka Stoyanova has combined several basic research methods relevant to the goal and tasks set for resolution - documentary; sociological methods - interview, observation, questionnaire and mathematical-statistical methods. The stages and time of the study are described in detail. The mathematical-statistical methods for processing and analyzing the collected data are correctly presented.

A research toolkit has been applied to conduct a qualitative and quantitative study of the two groups of respondents - a questionnaire for conducting an in-depth interview; a semi-structured questionnaire for the focus group; a checklist for observation; questionnaires for nurses, doctors and patients.

An own study was conducted, covering a total of 423 respondents, distributed as follows: 223 medical specialists providing activities and care for comorbid patients with acute myocardial infarction: nurses ($n = 125$) and doctors ($n = 98$); 200 patients with diagnosed acute myocardial infarction (AMI).

The study was conducted after approval by the Research Ethics Committee at the Medical University - Varna with Decision No. 128 of 02.03.2023. In order to achieve greater accuracy, the main part of the study was carried out independently by the doctoral student.

The information collected is sufficient in volume to obtain reliable results. The selected research methodology allows achieving the set goal and obtaining an adequate answer to the tasks solved in the dissertation.

The third chapter is dedicated to the results and their discussion and is 51 pages long. It represents the essence of the dissertation work and presents the results of the conducted research. In parallel with the presentation of the results of the experimental program, an objective assessment of the opinions of the respondents participating in the research is carried out, which allows for a better development of their multi-faceted quantitative and qualitative analysis.

A good impression is left by the visualization of the results after the statistical processing of the collected data. This makes the analysis and interpretation of the results more accessible and comparable with similar studies.

In the fourth chapter, entitled "Comorbid patients with AMI - challenges and opportunities in nursing practice" /138-186 pp./ the doctoral candidate describes in detail the main focuses for optimizing the management of cardiac care in comorbid patients with acute myocardial infarction. Based on the studies conducted, five main aspects have been identified that are at the center of effective management of cardiac care: ensuring integrated and coordinated care, a personalized approach to the patient, ensuring safety, continuing education of medical specialists, implementation of innovations and digital technologies. In order to improve the management of cardiac care, the author presents basic standardized frameworks developed by her, related to: assessment of the condition and care planning; social and psychological adaptation of patients with AMI; recommendations for patients regarding home recovery.

In the implementation of one of the tasks, doctoral student Stoyanova analyzes the role of nursing assessment, interventions and monitoring on the quality of life and health outcomes of patients. Appropriate and didactically sound programs for theoretical and practical courses for individual training, as well as curricula for specialization, are proposed. Based on the carried out precise analytical theoretical and empirical research, a model for rehabilitation care for patients with AMI in a hospital environment has been derived, emphasizing the coordinated work of the multidisciplinary team. The doctoral student demonstrates a research style and approach that is scientifically sound.

Chapter Five includes conclusions, recommendations and contributions. The dissertation ends with the formulation of conclusions, which are a natural conclusion from the conducted study, the obtained results and their interpretation. The most important conclusion is that specialized training for the management of comorbid patients increases the competence of nurses in the interpretation of diagnostic data. The introduction of standardized protocols for the management of OMI in comorbid patients reduces the time for documentation and improves the coordination of care, which confirms the significance of the presented dissertation. The recommendations made at the end of the dissertation are relevant and timely.

5. Contributions and significance of the work for science and practice.

The contributions formulated by doctoral student Stoyanova are objectively derived and defensible in the context of the analysis of the conducted study.

The contributions are both theoretical and practical in nature. The more significant of them are:

- A historical and conceptual analysis of nursing care in patients with acute myocardial infarction (AMI) in the context of comorbidities has been made.
- Contemporary trends and standards in cardiology practice have been analyzed, with an emphasis on the multidisciplinary approach and its importance for care management.
- The needs and attitudes of nurses for continuing education and specialization in the field of cardiac care and rehabilitation have been studied, and the relevant programs for practical and theoretical training have been developed.

- An approach has been introduced for developing individualized care and rehabilitation plans for patients with AMI and concomitant diseases, consistent with the multidisciplinary approach.
- A checklist has been developed for monitoring the needs of patients with AMI.
- A guide for nursing interventions in patients with AMI and concomitant diseases has been created.

6. Publications on the topic of the dissertation

One full-text publication is presented in connection with the dissertation. In the publication, doctoral student Stoyanova is the sole author.

7. Abstract

The content and quality of the abstract to the dissertation /in a volume of 89 pages/ follow the structure and reflect the goals, objectives, methods used, results achieved, conclusions and scientific contributions of the dissertation. My conclusion is that the abstract meets all standard requirements for a synthesized and adequate presentation of the primary document, the scientific text, as well as an objective reflection of the content of the dissertation research.

8. I have no critical remarks and recommendations regarding the conducted research and set of materials.

9. Recommendations for future use of the dissertation contributions and results

In view of Ivanka Stoyanova's career development and popularization of the results of her research, I recommend the publication of a monographic work dedicated to the current issues under consideration.

CONCLUSION

The dissertation shows that doctoral student Ivanka Stoyanova possesses in-depth theoretical knowledge and professional skills in the scientific specialty "Healthcare Management", demonstrating qualities and skills for independent scientific research.

The merits and qualities of the dissertation highlighted in the review are grounds for me to give my positive vote and to propose to the esteemed members of the Scientific Jury to award the educational and scientific degree "**Doctor**" to **Ivanka Atanasova Stoyanova in the scientific specialty "Healthcare Management" in the field of higher education 7. Health and Sports, professional field 7.4 Public Health.**

Prepared by the reviewer
/prof. Biyanka

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