

REVIEW

by **Prof. Kancho Trifonov Tchamov, MD, member of the scientific jury according to Order No. P-109-120/15.02.2023 of the Rector of Medical University "Prof. Dr. Paraskev Stoyanov" - Varna**

Regarding: procedure for the defense of the dissertation work of **Zhaneta Vasileva Stoyanova**, full-time doctoral student in full-time studies at the "Health Care" Department of the Faculty of Public Health at the Medical University - Varna topic: **"Modern aspects of providing a safe hospital environment in the practice of nurses"** on the doctoral program of "Health care management" from the field of higher education 7 "Health care and sport" in professional direction 7.4. "Public Health".

Research supervisor: Prof. Sonya Toncheva, MD, Public Health Sc. Dr.

1. Biographical data and career development of the doctoral student

Zhaneta Vasileva Stoyanova was born on December 31, 1969 in the city of Varna. She completed her secondary education in 1987 at the 5th USPS - Varna. Subsequently, in 1989 and 1999, she successfully completed bachelor's programs at the Medical College - Varna and MU - Sofia, majoring in "Nursing" and "Health Care Management". In 2003 and in 2011, she acquired an educational and qualification degree Master from the University of Varna, majoring in "Public Health" and "Health Care Management". She began her professional career as a nurse at the Multipurpose hospital for active treatment – Varna at the Military Medical Academy (MMA), where in the period 1989 – 2001 she worked successively in the Emergency Department and the Cardiology Department. After winning a competition, from 2001 until now she has been the head nurse of the MPHAT - Varna at the Medical Academy. In January 2020, she won a competition for a full-time doctoral student at the "Healthcare" department of "Prof Dr. Paraskev Stoyanov" Medical University - Varna. She participates in the educational and practical classes with students in the "Nurse" major and the pre-diploma internship of the EQD "bachelor" and "master" in the "Health Care Management" major. The PhD student participates in scientific forums and research projects in the field of health care.

The presented information about the career development of Zhaneta Stoyanova shows the presence of management skills and a purposeful pursuit of professional development and improvement.

2. Data for the dissertation work

The dissertation work of Zhaneta Stoyanova presented for discussion has a volume of 147 standard pages. The text of the development is illustrated with 47 figures, 34 tables and 5 appendices. The literature reference contains 260 sources, of which 66 are in Cyrillic and 194 are in Latin.

The work is presented in 5 chapters and is structured as follows: introduction, literature review, scientific research methodology, two chapters including analysis of results of own research on the safety of the hospital environment and approaches to providing it in the practice of nurses, conclusions, recommendations, literature and appendices. The separate chapters of the development are chronologically connected and meet the structural and content requirements for a similar scientific work. In an appendix, five appendices for researching the problem independently developed by the doctoral student are presented as a methodological toolkit, including: two questionnaires, each with 12 questions for researching the process of providing a safe hospital environment in the practice of nurses and its optimization; two survey cards to survey the opinion of nurses and patients on this issue; and excerpts from expert comments from an interview conducted with them.

In thematic connection with the dissertation, 5 scientific publications (one in the procedure of print) and participations are presented, with the doctoral student being the first author in 4 of them.

2. Actuality of the dissertation work

Health and safety at work is one of the areas where the EU has the biggest impact with a solid legal framework covering the maximum number of risks with the minimum number of regulations. As stated in Principle 10 of the European Pillar of Social Rights, workers have the right to a high level of protection for their health and safety at work. They have the right to a working environment adapted to their professional needs, allowing them to prolong their participation in the labor market. To better protect workers in EU countries from work-related accidents and illnesses, the European Commission has adopted a number of fundamental policy documents. The latest of them, "Strategic framework for health and safety at work for the period 2021-2027" defines the key objectives, necessary actions and instruments for the achievement of health and safety at work.

Despite the fact that healthcare professionals are committed to patient safety, there is some likelihood for episodic errors to cause harm to both patients and healthcare professionals. In order to increase the security and safety of hospital facilities, programs have been developed in recent years in a number of countries to identify and control the risks existing for the safety and quality of health services, the working environment and the medical staff.

In this context, the dissertation presented by Zhaneta Stoyanova treats a medico-social problem actual, but underestimated in the country, related to the "Concept of safety and health at work" in a hospital environment. The relevance of the presented study is also supported by: the absence of sufficient scientific studies and publications on the problem in our country; the need for evidence-based innovative models to provide a safe hospital environment for patients and medical professionals.

3. Awareness of the problem

The literature review in a volume of 30 pages includes 260 literature sources, the majority of which were published in the last 10 years. The analysis of scientific publications is structured

in three sections that chronologically analyze the main aspects of the researched problem, including: safe hospital environment (SHE) as a priority of health care and the models for its provision in our country and in other countries; infection control as an element of the provision of SHE; concept for SHE in nursing – components, models and practice.

The PhD student demonstrates good literature awareness and analytical abilities to place the right emphasis on current issues related to providing a safe hospital environment in nursing practice based on national realities and international experience. The synthesis made of the literary sources shows a deep knowledge of the problem, high professional and terminological competence. The conclusions from the rich literature review served as a basis for formulating the goals and structure of the dissertation work. The literature review convincingly substantiates the necessity and relevance of the study and points to its tasks and approaches to their realization.

4. Purpose, tasks and methodology of the study

The aim and set six tasks of the dissertation development are clearly formulated, specific and justified. The object, subject and scope of the study are defined in detail. It includes 285 people divided into the following four groups of respondents: nurses working in high-risk wards; lecturers from Departments of Health Care of MU-Varna and its affiliates; patients hospitalized in the MPHAT - Varna at the MMA; experts - chief nurses, epidemiologists and health inspectors of Health care (HR) working in specialized and multidisciplinary hospitals. The logical units of observation include representatives of the above-mentioned four groups of respondents selected on the principle of voluntariness and random selection. The methods of selection of the technical units, the criteria for their inclusion and exclusion and the stages of the study are precisely defined. Territorially, it was held in 16 academic units, hospitals and social institutions located in 9 regions of the country.

The chosen methodology of the research allows to successfully achieve the set goal and adequately solve the tasks in the dissertation work. The research methods are successfully selected and comprehensively described and statistically validated. The applied combined survey method for collecting the information by means of two questionnaires and two survey cards is original, using an in-depth and semi-structured interview. A high degree of correspondence was achieved between the set 6 tasks, the number of scientific interventions undertaken and the results obtained from the study.

I should point out the high quality of the methodological tools, the precision of the conducted research and the reliability of the results obtained. In this regard, I should also emphasize the merit of the scientific supervisor Prof. Dr. Sonya Toncheva.

5. Evaluation of the obtained results

The results of the study are presented in the third and fourth chapters with analyzes and evaluations, respectively, of the safe hospital environment in the practice of nurses and of the practical approaches to optimizing the provision of SHE. The study included four groups of respondents: nurses (145), patients (100), healthcare educators (20) and experts (20).

The analysis of the results reflected in Chapter III represents a situational analysis of the safety of the hospital environment in our country, formed through the opinions of nurses and patients. Of scientific interest is the wide scope of the selected groups of units and signs of observation, distributing the respondents according to the following characteristics: age, gender, professional experience, profile of the ward, level of education, employment, position, etc. The diverse set of observational signs included in the study and the precise statistical processing ensure reliability, quality and credibility of the results obtained and the conclusions drawn. The results obtained from the study of SHE in the practice of nurses are presented and interpreted in 7 thematic sections corresponding to the tasks set. A contribution to the theory of nursing care is the historical analysis and typification of the theories made by the doctoral student, affecting the role and impact of the environment in nursing practice.

A scientific-applied contribution has Questionnaire No. 1 developed by the doctoral student, containing 12 questions, aimed at establishing the degree of awareness of nurses about the process of providing SHE. The awareness criterion is the self-assessment of the level of knowledge in selected 10 areas of nursing practice, assessed using a Likert scale. The more important of them include knowledge of: the elements of SHE; regulatory documents; control of risk factors in nursing practice; blood borne infections; nosocomial infections; work and rest regime, professional stress, etc. The obtained results show close values of the relative shares between "excellent", "very good" and "good" degree of awareness. To verify the high self-assessment, the sources of information used by the respondents were also studied, such as: senior nurses, colleagues with experience, medical literature, various forms of training, etc. Of interest is the parallel comparative evaluation of the opinions of university lecturers and nurses regarding their practical skills acquired during their basic education. Approximately half of the nurses (48.3%) rated their skills as very good; one third of them (31.0%) have good skills; 13.1% rate their skills as excellent; and only 7.6% rate them as satisfactory. The academic disciplines that have the greatest contribution to the formation of their skills for providing SHE are also indicated.

The survey with Questionnaire No. 2 also ascertains the attitudes towards training regarding the innovations in the field of SHE in the practice of nurses. Participation in specialized courses, specializations and other forms of training was reported by 59.0% of the respondents, considering that they help to maintain an appropriate level of competence and qualification. The study of the barriers to participation in the different forms of training found that 42.4% of nurses did not participate due to high professional workload; 25.4% due to lack of motivation; and another 22.0% due to limited financial affordability.

In addition, Questionnaire No. 2 seeks information on the opinion of the different groups of respondents (patients, lecturers and experts) regarding: the possibilities for optimizing the process of providing SHE with the participation of a nurse; defining nurses' role in this process; the readiness to apply optimal or innovative models for this purpose. From the four groups of respondents, 49.7% consider that the nurse should be an active partner of the managers, and 39.3% define her as an independent responsible member of the team. Of interest are the results of the cross-analysis of the opinions regarding the factors affecting SHE; the degree of difficulty according to the structural elements; and the necessary actions to optimize the process for providing SHE. University lecturers arrange the important structural elements of innovative

models for providing SHE in the following hierarchical sequence: development of indicators; personnel training; risk control and management; organizational culture; registration of deviations; leadership and research. The results of the analysis of the opinions of the university lecturers regarding the leading conditions in the process of improving SHE, as well as the ranking of the elements of the process according to the degree of difficulty for implementation by nurses, are of a contributing nature.

Patient safety as part of the process of providing a safe hospital environment has been studied multifacetedly in terms of: knowledge of safety rules during hospitalization; general assessment of the hospital environment during hospitalization; comparison of the opinions of patients and nurses about SHE, etc. The summary result of the patients' opinion shows: very good (57%) and good (40%) safety conditions; the role of nurses for SHE is significant; and the existing practices in their activity can be improved. The analysis of the results of the three thematic categories of the conducted in-depth interview with experts confirm the following conclusions made in previous surveys about: the key role of the nurse in providing SHE; need to optimize the process by introducing new models and continuous staff training.

The safety of the hospital environment is an indicator of the quality of any healthcare system, which requires actions not only to maintain the condition, but also actions aimed at improving the environment. In this direction, on the basis of the obtained results and of studied good international practices, the doctoral student presents a model developed by her for optimizing the process of providing a safe hospital environment with the participation of nurses. The presented development, as the final result of the research, has a high scientific-theoretical and scientific-applied value. The model is presented with theoretical and strategic justifications with formulated operational and strategic goals, organizational framework, structural elements and expected results.

In order to prospectively evaluate the scientific-applied contribution and the expected results, the doctoral student subjects the developed model to an expert evaluation for adequacy and applicability. The experts' conclusion is summarized as follows: there is a scientifically proven and justified need for its introduction; its use will lead to improved safety and outcome evaluation of changes made in the hospital environment; will reduce likelihood of organizational and medical errors in nursing practice.

In conclusion, I should emphasize that the analysis of the respondents' answers is precisely presented with numerous figures and tables that reveal existing correlational dependencies, synthetically presented in the conclusions. The main conclusions, 9 in number, are systematized in the main thematic areas, accurately reflecting the obtained results, respectively, the purpose and tasks of the dissertation work. The recommendations are targeted, offering innovative practices for SHE and institutionally addressed to the Ministry of Health, Medical Universities and Bulgarian Association of healthcare professionals.

The contributions of the dissertation, which I accept as formulated, are comprehensively described by the doctoral student and have a scientific-theoretical and scientific-applied nature. I have no critical remarks and recommendations to the presented results and conclusions.

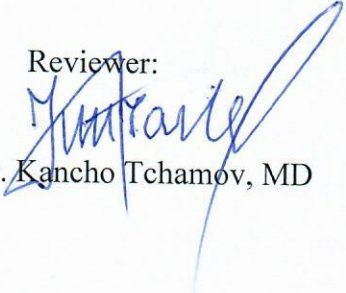
The content and quality of the abstract meets the requirements of the Regulations of the Medical University - Varna, faithfully and adequately reflecting the main results of the study.

In conclusion, I believe that the dissertation work presented by Zhaneta Vasileva Stoyanova on the topic "Modern aspects of providing a safe hospital environment in the practice of nurses" in terms of topicality of the problem, precision of the methodology, quality of the obtained results and scientific contributions meets the requirements of the Law for the development of the academic staff in the Republic of Bulgaria and the Regulations for the development of the academic staff of the MU-Varna.

In this regard, I will vote positively and strongly recommend to the members of the Scientific Jury to award Zhaneta Vasileva Stoyanova, a full-time doctoral student in the Doctoral Program "Health Care Management" of the Public Health Faculty at the Medical University of Varna, the educational and scientific degree "Doctor" in the field of higher education 7. Health care and sports in a professional direction 7.4. "Public Health" and the scientific specialty "Health Care Management".

21.03.2023
Sofia

Reviewer:


Prof. Dr. Kancho Tchamov, MD