

STATEMENT

BY PROF. TEODORA DIMITROVA, MD, PhD

member of the Scientific Jury according to Order No. R-109-429 of 20.12.2019 of the Rector of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

Subject: Defense of a dissertation on the topic *"Protection of the population at flood risk in Varna region"* by **Prof. Dr. Hristianna Angelova Romanova-Radeva, MD**, Head of the Department of Disaster Medicine and Maritime Medicine, Medical University of Varna, for the acquisition of the scientific degree **"Doctor of Sciences"** in higher education 7. "Health and sport", professional field 7.1. "Medicine", in the **Scientific specialty "Disaster Medicine"**

The candidate is Prof. Hristianna Angelova Romanova-Radeva, MD, PhD - submitted all the documents necessary for the competition procedure in accordance with the requirements of the Rules for the development of the academic staff of the Medical University - Varna.

Short biographical data

Prof. Hristianna Romanova graduated with a degree in Medicine from the Medical University of Varna in 1979. Her professional development began at the Medical University of Varna, where during the period 1980-1990 she developed her academic career by taking up the positions of assistant, senior assistant and chief assistant. In 1985, she completed her specialization and acquired the medical specialty "Health Care" (equated to "Disaster Medicine"). In 2006, after defending her thesis "Disaster Situations in Varna Region and Possible Hygienic-Epidemiological Problems", the candidate obtained a doctoral degree in the specialty "Disaster Medicine". In 2008, after a competition, she was awarded the academic position of Associate Professor, and then within the period 2008 - 2017 Headed the Chair of Disaster Medicine Section. In 2017, she took over the management of the established Department of Disaster Medicine and Maritime Medicine, which has been successfully developed to date. As of 2018, she has acquired the academic position of "Professor" in the same structure of the MU "Prof. Dr. Paraskev Stoyanov" Varna.

As a habilitated lecturer, she actively participates in the teaching of 8 disciplines to students from different specialties. In the period January 2017 - January 2019, she is a national consultant on Disaster Medicine. She is the head of three postgraduate students and five PhD students at the Medical University of Varna. She participates in 5 first aid research projects and training, Non-Conventional Cataclysms and Medical Assistance Organization.

She is a member of scientific and professional organizations, such as the Bulgarian Society for Catastrophe Medicine, the Society for Medical Geography, the Union of Scientists-Varna, BUD. Prof. Romanova is fluent and active in Russian, German and English in her professional and research activities.

Relevance and importance of the thesis work

The topic of the dissertation covers an extremely topical and significant medical, organizational and public health problem in the country. The urgency is driven by the sustainable climate trends for global warming of the Earth's atmosphere and the related challenges to the system of organization of medical assistance in disasters, and in particular - in floods. There is potential for real practical applicability of the results.

Structure and content of the dissertation

The dissertation is presented in a total volume of 225 standard pages. The content is structured as follows:

Chapter One: Introduction.

Chapter Two: Purpose, tasks and hypotheses; materials and methods.

Chapter Three: Own research: Model for determining the risk of floods in the Republic of Bulgaria (and in particular in the Varna region); Analysis and summarization of the tasks and activities of the institutions for protection of the population at national, regional and municipal level; Research and systematization of the health risks of floods; Study and analysis of flood medical care; Awareness-raising and assessment of flood preparedness for foreign and Bulgarian citizens over the age of 18; Awareness-raising and assessment of the preparation for flood protection of foreign citizens temporarily residing in the Republic of Bulgaria; Awareness-raising and evaluation of the preparation of adult Bulgarian citizens for flood protection and comparison with those of foreigners.

Chapter Four: Developing a Strategy for flood prevention and protection; Based on studies, analyzes and evaluations, recommendations are made to provide meaningful assistance and support to the population in floods.

Chapter Five: Conclusion; general conclusions; offerings.

The work is illustrated with 9 tables, 82 figures, 5 photos and 10 applications. The bibliography includes 289 literary sources, 116 of which are in Cyrillic and 173 in Latin.

Purpose, tasks, hypotheses

The purpose of this paper is clearly and precisely stated: "to study the risk of floods as a major problem for the population in the Republic of Bulgaria (and in particular in the Varna region), to inform and prepare the population for proper behavior during and after the flood and to proposed prevention to reduce the adverse effects on their health and material security."

Seven basic tasks are presented, which are logically consistent and cover the complex problem. Six working hypotheses were investigated, which were clearly formulated and consistent with the tasks.

Material, methods, tools

In line with the objective there are several own studies using methods of theoretical analysis, comparative analysis, methods of flood risk assessment and sociological research using a questionnaire method for the population from the risk areas.

Results from own research

The results of her own research are presented in several parts and are well structured according to the tasks set. It is valuable to analyze and summarize the tasks and activities of the institutions for the protection of the population at national, regional and municipal level. Survey and analysis of medical assistance for floods, identifies medical needs for floods in the Varna region and assesses that they can be managed by their own resources and resources due to the limited nature of the damage and the victims. The merit of scientific development is the comprehensive study and disclosure of the state of awareness and preparation for protection against floods of foreign and Bulgarian citizens over the age of 18, as well as its subsequent comparative analysis.

The original contribution is the assessment of the knowledge of the two groups studied as average – for Bulgarians and good for foreigners with regard to First medical aid with bandages; Poor evacuation preparation in both study groups has very low awareness of both study groups regarding the flood protection plan.

A significant part of the results is directed to the development of a training strategy to increase the preparation for the protection of the population in disasters (especially for floods). The main

recommendations and proposals for flood risk reduction are addressed to the Ministry of Education and Science, Ministry of Transportation Information technologies and Communications.

Conclusions and contributions of the dissertation

The conclusions are clearly formulated, summarize the complex nature of the problem under investigation, follow the research objectives and logically derive from the results obtained.

The results of a comprehensive study of the problem, covered in depth and in full, warrant the dissertation to propose a training strategy for enhancing the preparation for the protection of the population in case of disasters (especially for floods).

Prof. Romanova synthesizes the resulting recommendations and suggestions, the most valuable of which are:

1. It is proved that more information and preparation of the public in the Republic of Bulgaria on the risk of floods and compulsory training of the population for proper actions and first aid through the assistance of Ministry of Education and Science, Ministry of Transportation Information technologies and Communications, Ministry of Environment and Water, Bulgarian Red Cross, the municipal leadership and Firefighting Department.

2. Visual materials have been developed to raise awareness and knowledge of the population on flood issues:

- General recommendations for the population at risk of flooding. Protection and proper behavior in the floodplain. Instructions for rendering first aid (pre-medical) to flood victims.
- Raising awareness and knowledge of the population on flood issues.
- Health recommendations after a flood. Major hazards. Important knowledge for everyone in the floodplain.
- Preventive measures in the home and office, etc.

I fully accept all contributions from the author.

Publications on the topic of the thesis

In connection with the dissertation, 12 full-text publications were presented, one in English. Prof. Romanova is the sole or the first author of 4 of the publications related to the dissertation, which is further proof of the candidate's commitment to the problem under study.

Evaluation of the abstract

The abstract is prepared according to the requirements, very well structured and fully reflects the content of the dissertation. It is well illustrated with 5 figures and 12 tables.

I have no critical notes on the work presented.

My recommendation is to encourage the author to use her expertise, experience and potential to take the necessary steps and actions to implement the recommendations proposed in the dissertation related to the need for more information and preparation of the public in the Republic of Bulgaria on flood risk and compulsory education of the population for proper actions and first aid through the assistance of Ministry of Education and Science, Ministry of Transportation Information technologies and Communications, Ministry of Environment and Water, Bulgarian Red Cross, the municipal leadership and Firefighting Department.

My personal impressions of Prof. Romanova characterize her as organized, self-demanding, responsible and correct. She demonstrates the qualities of a consistent and conscientious researcher who shares her experience and knowledge with colleagues and students.

Conclusion

The dissertation presented is the first of its kind a thorough and comprehensive study of the medical and organizational problems of floods in the emergency medicine.

The high appreciation of all the merits of the dissertation gives me a reason to give a positive opinion and convinced that I propose to the Scientific Jury to vote positively and award to Prof. Dr. Hristianna Romanova-Radeva, MD PhD in Higher Education "7. Health and Sports", professional field "7.1. Disaster Medicine".

20/01/2020
Varna

Member of the Scientific Jury:
/ Prof. Teodora Dimitrova, MD, PhD/

