

STATEMENT

From Prof. Ivanka Kostova Stambolova, PhD

I have been appointed by Order No. № P 109-508/29.11.2023 of the Rector of the Medical University – Varna, to present a position statement on the doctoral thesis of

Stanislava Milcheva Mavrodinova

full-time doctoral student at the Department of Nursing Care at

The Medical University – Varna

Subject of the thesis:

Raising Awareness of Radiation Risk in Medical Diagnostics and Therapy

The doctoral thesis is submitted for awarding the educational and scientific degree Philosophy Doctor in higher education area 7. Healthcare and Sports, 7.4. Public Health – professional field, Scientific Specialty Healthcare Management.

Scientific supervisors. Prof. Anna Georgieva, PhD and Assoc. Prof. Vesselina Slavova, PhD

Brief career profile of the PhD student

Stanislava Mavrodinova graduated from MC Plovdiv in 1999 in the specialty X-ray laboratory technician. She worked successively in her speciality in the Department of Imaging Diagnostics at the Naval Hospital and St. Anna's Hospital, Clementine Diagnostic Clinic and Rusev Medical Diagnostic Laboratory Varna. Since 2009, she has been a lecturer in the X-ray Laboratory Assistant educational sector at the Medical College of MU–Varna. Since 2020, she has been an assistant professor. In 2003, she graduated from St. Cyril and St. Methodius University of Veliko Tarnovo with a Bachelor's degree in Social Services. In 2008, she obtained her first Master's degree in Public Health at the Medical University "Prof. Dr. P. Stoyanov", Varna. In 2014, she earned a second Master's degree in Healthcare Management at the same university. Since 2021, Mavrodinova has acquired a speciality in Public Health. Mavrodinova has participated in numerous projects and scientific forums, has 14 publications, and teaching activities. She conducts practical sessions, teaching practice, and pre-graduate internships for students in the speciality of X-ray laboratory technicians.

Relevance of the thesis subject

The author's choice of subject is both relevant and compelling. The issues related to the activities of radiology laboratory technicians in their participation in medical diagnostic and

therapeutic procedures as part of the healthcare and public health system are critical and essential in terms of ensuring patient awareness. The subject remains highly relevant in the current context of ever-increasing demands on the application of ionising radiotherapy – an activity standardised at European and global levels. A key component of this subject is respecting the patient's rights, especially the patient's right to informed consent for all medical and diagnostic procedures affecting his/her life and health. Due to these factors, I believe the discussed subject is highly valuable and relevant.

In accordance with Article 61(3) of the Rules and Regulations for Development of the Academic Staff at MU “Prof. Dr Paraskev Stoyanov” – Varna (as of 21/11/2022), namely the Thesis requirements for Acquiring the Degree Philosophy Doctor. The structure of this type of research is adequately reflected in the thesis and meets the criteria. The submitted thesis is presented on 191 standard pages and contains: three chapters, conclusions and recommendations, contributions and appendices. The bibliography consists of 279 sources – 49 in Cyrillic and 230 in Latin. The thesis is illustrated with 3 tables and 74 figures. It contains four appendices.

Literature review

In Chapter ONE, the author conducts a thorough literature review on the issue. It is quite extensive and covers about 35% of the thesis.

Despite the advancements in science regarding X-ray tests and diagnostic methods involving ionising radiation, as well as the abundance of research studies, the effective practical implementation of the process of informing patients and medical professionals about these procedures still faces a number of challenges. In this literature review, Mavrodinova provides a thorough and professional analysis of the current problems with X-ray examinations using ionising radiation. Studies from a number of countries are presented. The analysis examines the standards and practices used in Bulgaria and other countries. The review leads to logical conclusions, according to which it is necessary to optimise the organisation, documentation and systematisation of information related to radiation risk in medical diagnostics and therapy in Bulgaria. The author highlights several issues, such as the lack of standardisation, incomplete information, different language and approach, as well as limitations on the right to give or deny consent. Research studies such as the present one aim to identify ways to enhance opportunities for the participation of radiology laboratory technicians in the process of informing and obtaining informed consent from patients for radiological examinations and diagnostic procedures using ionising radiation sources.

Methods and research methodology

Chapter TWO presents the methodology of the study. The aim is formulated precisely and clearly. Eight relevant tasks and five research hypotheses are stated. Diverse and complementary methods are used to achieve greater objectivity of the results obtained. The author clearly demonstrates her expertise in socio-medical and pedagogical approaches to scientific research. A proprietary sociological survey was conducted with three groups of respondents - patients, X-ray laboratory technicians and physicians. A total of 370 individuals were surveyed, which fulfils the criteria for this particular scientific research. The methodology is comprehensive and meets the requirements for a thesis. The research was

thoroughly documented, including the materials used and the methods employed, providing a comprehensive understanding of the study's purpose.

Analysis of the research results

In Chapter THREE, an in-depth evaluation of the research outcomes for each respondent group is provided. The author demonstrates analytical skills in identifying and discussing the data obtained. The analysis is closely tied to the formulated hypotheses and research inquiries that are integral to the research problem being addressed.

The author correctly interprets the empirical results and presents the study data with appropriate graphical and tabular analysis. The findings have been consolidated into **ten well-researched and clearly stated conclusions, accompanied by 3 sets of recommendations.**

Chapter FOUR presents innovative tools and models for increasing the awareness of medical professionals and patients about the risk of ionising radiation in the course of medical diagnostic and therapeutic procedures, which have been developed by the author.

Five theoretical and three practical are formulated. The presented bibliography is in alphabetical order and meets the requirements.

The thesis is written in an appropriate literary style. The appended figures and tables are sufficiently informative and relevant to the text.

I consider the following thesis contributions as the most significant:

1. An author's model for a unified patient informed consent form for diagnostic and therapeutic procedures with ionising radiation has been created;
2. An author's model for a patient Radiation Passport for individual dose during radiation exposure has been created;
3. A multifactorial framework of the informed consent process has been developed, which is compliant with Bulgarian regulations and is applicable to all X-ray examinations and diagnostic procedures.

Thesis summary

The submitted thesis summary is 77 pages long and meets the requirements.

The doctoral student has also submitted two scientific publications containing parts and results of the thesis research.

Compliance with the criteria of the legal framework for obtaining the PhD degree

In conclusion, I consider that the thesis presented by Stanislava Mincheva Mavrodinova on the subject "Raising Awareness of Radiation Risk in Medical Diagnostics and Therapy" addresses a pressing issue and provides theoretical and practical perspectives to enhance healthcare and patient understanding of diagnostic and therapeutic techniques using ionising radiation. The study fully complies with the requirements of the Academic Staff Development Act in the Republic of Bulgaria and the Rules and Regulations for Academic Staff Development at MU-Varna. Declarations of originality are included alongside the thesis to support the performed research. According to the iThenticate system, a similarity check

revealed that 13% of the text matched with online sources, validating the independent authorship of the doctoral student's work.

In light of the above and in accordance with the provisions of the Academic Staff Development Act in the Republic of Bulgaria and the Rules and Regulations for Academic Staff Development at MU-Varna, I give a **positive evaluation** and recommend to the members of the Scientific Jury to award Stanislava Mincheva Mavrodinova with **the educational and scientific degree Philosophy Doctor in the field of higher education 7. Health and Sports, professional field 7.4. Public Health, scientific specialty Healthcare Management.**

Заличено на основание чл. 5,
§1, б. „В“ от Регламент (ЕС)
2016/679

13/01/2024

Prof. I. Stambolova, PhD