

STATEMENT

**BY ASSOC. PROF. PAVLINA PENKOVA TENEVA, PhD.
THRACIAN UNIVERSITY - MEDICAL COLLEGE STARA ZAGORA**

Department of Health Care,

On the dissertation of Ivelina Dragieva Dobрева

on the topic

**SOCIAL-PSYCHOLOGICAL AND DIAGNOSTIC APPROACH OF THE MEDICAL
LABORATORY TECHNICIAN AS PART OF A MULTIDISCIPLINARY TEAM FOR
THE TREATMENT OF PATIENTS WITH SARS-COV-2**

Research supervisors:

Assoc. Prof. Emilia Georgieva, PhD.

Assoc. Prof. Dr. Tsvetelina Turpomanova, MD.

For the award of the educational and scientific degree "Doctor" in the field of higher education:
7. Health and Sport, professional field 7.4. Public Health and scientific specialty: Health care
management.

Details of the procedure

Ivelina Dragieva Dobрева by the order of the Rector of Medical University "Prof. Dr. Paraskev Stoyanov", Varna № P-109-303 from 27.07.2022 was enrolled as a PhD student in the independent form of study in the Doctoral Program in "Health Care Management" at the Department of Health Care, Branch Sliven, Medical University, Varna for the acquisition of educational and scientific degree "Doctor" in the field of higher education 7. Health and Sport, professional field 7.4. Public Health, Doctoral Programme in Health Care Management. At the Departmental Council of the Department of Health Care, Sliven Branch of Medical University Varna on 29.11.2023 the readiness for public defence of the PhD student was established and a proposal for the composition of the Scientific Jury was made.

I present this opinion as a member of the Scientific Jury, elected and voted by the AC of Medical University - Varna (Minutes No. 82/12.02.2024) and appointed in accordance with the Order of the Rector of the Medical University - Varna No. R-109-51 of 15.02.2024. "SOCIAL-Psychological and Diagnostic Approach of the Medical Assistant as a Part of the Multispecialty Clinical Team for the Treatment of Patients with SARS-COV-2", developed by Ivelina Dragieva Dobрева, PhD student at the Department of Health Care, Branch - Sliven, Medical University - Varna. According to the protocol No. 1/26.02.2024 of the first meeting of the Scientific Jury, I am appointed to present an opinion on the dissertation.

The presented set of materials on paper and electronic media has been prepared in accordance with the Academic Staff Development Act of the Republic of Bulgaria and the Academic Staff Development Regulations of Medical University - Varna.

The dissertation "**Social-psychological and diagnostic approach of the medical laboratory technician as a part of a multidisciplinary team for the treatment of patients with SARS-COV-2**" is the result of the focused work of Ivelina Dobрева as a researcher based on her professional qualification "Medical Laboratory Technician", lecturer at the Medical College, and professional realization.

Education and training

After completing her basic medical education, the specialty "Medical Laboratory Technician" at the Institute of Medical Sciences in Plovdiv in 1990. Ivelina Dobрева continued her professional development and training. In 1995 she acquired a post-secondary education at the Semi-Higher Medical Institute in Plovdiv. In 2011, she obtained a Bachelor's degree in Health Care Management at Trakia University Stara Zagora, and a Master's degree in 2015 at MU Plovdiv.

Professional realization

Ivelina Dobрева's professional development as a medical laboratory technician began in 1990 in the Stara Zagora UWH in the Clinical Laboratory, and in 1996 she moved to the Clinical Laboratory at the University Hospital Stara Zagora, EAD. From 2006-2011 she was appointed as a medical laboratory technician at the Rhythm Medical Center in Stara Zagora, Bulgaria. She was employed as a nurse at the Rhythm Hospital in Stara Zagora. Since 2011 she continues her activity as a medical laboratory technician in the clinical laboratory of MC-MK Beroe EOOD, Stara Zagora. He has been working as a medical doctor at the University of Stara Zagora.

Her academic development began in 2011 when she was appointed as a lecturer and in 2016 as a senior lecturer at the Medical College Stara Zagora and continues until now as a PhD student in an independent form of study at the Branch - Sliven of the Medical University "Prof. Dr. Paraskev Stoyanov" Varna, Department of Health Care.

From 27.07.2022. Ivelina Dragieva Dobрева is enrolled as a PhD student in the independent form of study in the Doctoral Program in Health Care Management at the Department of Health Care, Branch - Sliven, Medical University "Prof. Dr. Paraskev Stoyanov" Varna. He teaches the courses "Clinical Laboratory" and "Clinical Practice". She uses english, french and russian.

Characteristics of the dissertation

The dissertation developed by Ivelina Dobрева is 160 pages long, with the standard structure for the professional field and includes: introduction (2 p.), first chapter consisting of three main parts - "The Kovid pandemic - challenges to society", "Social-psychological characteristics of a patient with Sars-Cov-2", and "The medical laboratory technician as part of the interdisciplinary team for diagnosis and treatment of patients with Sars-Cov-2" (40 p.); chapter two "Methodology and organization of the research " (8 p.); chapter three "Results of own research and discussion" (44 p.); chapter four "Approaches to improve and maintain the mental health of medical laboratory technicians" (9 p.) conclusion, conclusions; and contributions (4 p.); literature used (16 p.) The dissertation addresses and analyzes

contemporary issues. The content corresponds to the topic and reflects the results of the research done by the PhD student. The bibliographical reference contains 152 titles of which 66 in Cyrillic, 74 in Latin and 12 from the Internet.

Literature review

Sr.L. Ivelina Dobрева presents a detailed literature review of an extensive body of scientific publications covering current information on the Covid pandemic and the role of the medical laboratory technician as part of a multidisciplinary team working in a high-risk environment. A social-psychological characterization of a patient with Sars-Cov-2 and the impact of the pandemic on the mental health of healthcare workers are presented. An algorithm by which laboratory tests are most commonly assigned is also presented - laboratory minimum, laboratory optimum, laboratory maximum. Changes in laboratory parameters when treating patients with Sars-Cov-2 are discussed in detail, covering two packages general and advanced. The last part of the literature review is devoted to the medical laboratory technician as part of the multidisciplinary team in the diagnosis and treatment of patients with Covid, his interaction with - nurse, physician, and communication with patients. The professional activities that medical laboratory technicians can perform independently or under a physician's order are discussed.

The literature review and bibliographic reference betray the doctoral student's broad awareness of the topic at hand.

Study methodology and organisation

The research methodology is described in detail and correctly, and the PhD student aimed to investigate the need for a social-psychological and diagnostic approach of the medical laboratory technician as part of a multidisciplinary team for the diagnosis and treatment of patients with Sars-Cov-2. To achieve the aim, five main objectives and three research hypotheses were set.

For a better presentation and a higher level of acceptability of the dissertation, Sr.L. Dobрева has distinguished three research hypotheses. The methodology is presented in detail. Both the subject and the object of the study are relevant.

The survey included 200 respondents divided into three groups.

- **The first group** - doctors and nurses practicing in the city. Stara Zagora (n=50);
- **Second group** - medical laboratory technicians practicing in Stara Zagora (n=50). Stara Zagora (n=50);
- **Third group** - patients undergoing Sars-Cov-2 in outpatient or inpatient settings in Stara Zagora (n=100).

The study stages are described in detail and presented in tabular form. Three types of anonymous questionnaires containing open and closed questions were developed. The study was conducted after obtaining permission from the Research Ethics Committee of the Medical University - Varna. All participants signed informed consent.

The research methods in the study - documentary, sociological and statistical methods were adequately applied. Descriptive evaluation methods, hypothesis testing methods, correlation analysis were used for the statistical presentation of the results to establish the relationship

between the quantitative and qualitative variables studied. The data were graphically illustrated using tables, bar and pie charts implemented in MS Excel.

The third chapter of the thesis presents the results obtained from the own study, which are well analysed in the discussion and summarised in the conclusions, revealing the real state of the problem in practice. Of the results obtained, the following can be highlighted as more significant:

- The need for a specific socio-psychological and diagnostic approach of the medical laboratory technician as part of a multidisciplinary team for the treatment of patients with SARS-COV-2;

- The need for additional training, as well as the need to include a psychologist in multidisciplinary medical teams working in high-risk environments.

In the fourth chapter of the dissertation, Sr. L. Dobрева presents a schematic model for Prevention of Mental Health of Medical Laboratory Technicians. It aims to implement preventive measures to combat occupational stress - optimization of the work regime, communication skills training, support for psycho-emotional state, implementation of mental health interventions. The implementation of the model goes through seven stages, each of which includes different measures and activities. An essential point in the fourth chapter of the thesis is the proposal to introduce "Clinical Laboratory Constellations in Covid" during the training of students of the Medical Laboratory Technician specialty.

On the basis of the studied literature sources and the results of her own research, Ivelina Dobрева has made three recommendations - suggestions. Particularly good impression are the outlined contributions - five of theoretical-cognitive character and three of practical-applied character.

The abstract is 68 pages long and reflects in a synthesis the main chapters of the thesis. It is richly illustrated with tables and figures.

On the basis of the research carried out, the PhD student prepared her scientific thesis, as well as two publications, of which the first is the sole author, and the second is co-authored, which proves her personal participation in the research, the results obtained and contributions.

In summary, I believe that the topic of the dissertation is original, the results are significant, the contributions are substantial, a thorough and sufficient research in which the doctoral student has analyzed the problem thoroughly and sufficiently.

The thesis meets all the requirements of the Law for the Development of Academic Staff of the Republic of Bulgaria (LADRB), the Regulations for the Application of the LADRB and the Regulations for the Development of Academic Staff of MU - Varna for the Acquisition of the Educational and Scientific Degree "PhD", which gives me the reason to give my POSITIVE VOTE and to recommend the esteemed Scientific Jury to award to the PhD candidate the degree of PhD. 7. Health and Sport, professional field 7.4.0Public Health and scientific specialty.

16.04.2024.
Stara Zagora

Member of the Scientific Jury:
(Assoc. Prof. Pavlina Penkova Teneva, PhD)

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