

## **OPINION**

by Assoc. Prof. Pepa Miteva Dzhezheva, DrPH  
Department of "Health Care" – Sliven Affiliate  
at Medical University "Prof. Dr. Paraskev Stoyanov" – Varna

Member of the Scientific Jury pursuant to Order No. P-109-318 dated 24.07.2025 by the Rector  
of Medical University "Prof. Dr. Paraskev Stoyanov" – Varna

**Regarding:** procedure for obtaining the educational and scientific degree "Doctor" in the field of  
higher education: 7. Healthcare and Sport, professional field: 7.4 Public Health, specialty:

"Health Care Management"

by **Anushka Strahilova Uzunova** – a doctoral candidate pursuing an individual form of study

**Topic: "The impact of the COVID-19 pandemic on nutrition and physical activity of those  
involved in the educational process – trainers and trainees at the Medical College – Stara**

**Zagora"**

**Scientific supervisor:** Assoc. Prof. Svetlana Peneva Angelova, DrPH

### **1. General overview of the procedure**

By Order of the Rector of MU – Varna No. P-109-377 from 23.08.2023, Anushka Strahilova Uzunova was enrolled as a doctoral candidate in an individual form of study in the Doctoral program of "Health Care Management" at the Department of "Health Care," Sliven Affiliate at the Medical University – Varna, to obtain the educational and scientific degree "Doctor" in the field of higher education 7. Healthcare and Sport, professional field: 7.4 Public Health, specialty: "Health Care Management".

The dissertation, authored by Anushka Strahilova Uzunova, titled "The impact of the COVID-19 pandemic on nutrition and physical activity of those involved in the educational process – trainers and trainees at the Medical College – Stara Zagora" for awarding of educational and scientific degree "Doctor" was discussed and directed for defense by the Departmental Council of Health Care Department – Sliven Affiliate, Medical University "Prof. Dr. Paraskev Stoyanov" – Varna, on 17.06.2025. The scientific supervisor is Assoc. Prof. Svetlana Peneva Angelova, DrPH.

The submitted set of documents complies with the Regulations for the Development of the Academic Staff at Medical University "Prof. Dr. Paraskev Stoyanov" – Varna and includes:

dissertation work, abstract, curriculum vitae, list of publications related to the dissertation topic, copies of publications, declarations, etc.

## **2. Biographical summary of the doctoral candidate**

The author, Anushka Strahilova Uzunova, graduated from the Medical College at Trakia University, Stara Zagora, specialty “Rehabilitationist” in 1999, and in 2011 obtained a Master’s degree at the Faculty of Public Health, Medical University – Sofia, specialty “Health Care Management.”

Her career development related to the university education commenced in 2012 as a Senior lecturer, and since 2020 she has served as a head of the “Medical Cosmetologist” specialty at Trakia University – Medical College – Stara Zagora. She teaches the following subjects: Kinesitherapy – Exercises; Therapeutic Massage – Lectures and Exercises; Kinesiology – Exercises; Pathokinesiology – Exercises; Manual muscle testing – Lectures and Exercises; Hygienic Cosmetic Care and Procedures – Lectures and Exercises; Clinical Practice.

## **3. Information about the dissertation work**

The dissertation work developed by Anushka Uzunova focuses on studying the impact of online education during the COVID-19 pandemic on the physical activity and nutrition of students and educators at the Medical College – Stara Zagora. The dissertation is structured in a total volume of 143 pages, of which the main text is 117 pages, and includes four chapters: chapter one – Literature review – relevance of the problem, chapter two – Aim, objectives, methodology, chapter three – Results of own research, chapter four – Model for nutritional and physical regimen during online studying, conclusions, contributions, appendices, bibliography, and publications related to the dissertation. It is illustrated with 33 tables, 51 figures, and 3 appendices. The bibliography includes 175 sources: 26 in Cyrillic, 138 in Latin, and 11 websites.

The individual chapters of the thesis are chronologically connected and meet the structural and content requirements for such a scientific work. The research tools are self-developed and include two questionnaires to study attitudes and opinions on the negatives of online education, the impact of COVID-19 and the remote studying imposed and its consequences on the physical, mental, and health status of students and lecturers as participants. A diagnostic card collects personal data about respondents and exact record of selected clinical indicators sensitive to

hypodynamia, nutrition, and social isolation: blood pressure, pulse wave velocity, functional physical capacity, anthropometric indicators, muscle strength, bone density. These are presented in the appendices. Two peer-reviewed publications related to the dissertation topic were published.

#### **4. Familiarity with the studied problem**

The literature review is 37 pages long and includes 175 sources, the prevailing part of which have been published during the past 10 years. It is structured into three main sections, which chronologically follow the main tasks of the problem researched by the doctoral candidate and address different aspects of the issue.

In the literature analysis the author investigates the remote form of studying as one of the mandatory measures taken during the COVID-19 pandemic. She provides a general description of its scope and consequences for health care and education following SARS-CoV-2. The aspects reviewed outline changes in remote teaching, technology-based methods, difficulties faced by students upon adapting to the learning/working environment. Advantages and disadvantages of remote studying are presented. The importance of adverse consequences for physical and mental health due to social isolation, prolonged screen time, and lack of ergonomic learning environments during the pandemic is emphasized. Literature review shows that balanced nutrition and regular physical activity are considered an essential preventive measure for maintaining good physical and mental health upon necessity of applying remote studying or working.

#### **5. Methodology of the study**

The aim of dissertation is clearly and precisely formulated: Investigating the impact of online education during the COVID-19 pandemic on the physical activity and nutrition regimen of students and educators at the Medical College – Stara Zagora, a universal set of healthy practices shall be developed and proposed so to reduce and/or overcome negative consequences affecting the physical and mental health of those using an online learning or working environment. Two working hypotheses are set out, as well as six tasks to encompass different aspects of the problem and ensure proper execution of the planned research.

The research tools are self-developed and include two questionnaires: for students, including 27 questions, and for lecturers from Medical college of Trakia university, including 28 close-ended questions.

A diagnostic card was prepared to conduct an experiment related to compilation of a regimen for nutrition and physical activity for a fixed period of time.

The research methods used are: documentary, sociological, statistical, and experimental.

## **6. Results and discussion**

The results of own research of Anushka Uzunova are presented in chapter three of the thesis. It includes two respondent groups: Lecturers, performing the education at Medical College of Trakia University, Stara Zagora – 32 respondents; and students from specialties of “Rehabilitationist”, “Medical Laboratory Technician”, “Medical Cosmetologist” and “Assistant pharmacist” – 159 respondents.

They are grouped into thematic sections following the chronology of the six tasks set out.

The results obtained are analyzed and presented in 24 tables and 47 figures.

According to the data submitted, a high relative share of respondents stated they could not define their diet during the pandemic as healthy, which is a consequence of the synergy between stress, social isolation, and physical inactivity leading to drastic changes in eating habits.

Findings show that the social isolation, prolonged screen time, hypodynamia, fear of contamination, and uncertainty affected the circadian rhythms. One of the real manifestations of this negative impact is difficulty in falling asleep, frequent waking, staying awake and insomnia, exerting subsequent effect on cognitive functions and mental health.

Based on the data analyzed and her teaching experience, Anushka Strahilova Uzunova presented a Model for nutritional and physical regimen in cases of online form of studying in line with Ordinance No.1 dated 22.01.2018 on physiological norms for nutrition of the population. She also prepared a set of exercises to be practiced in home environment to compensate for reduced physical activity caused by the online studying and working. An experiment was performed applying the compiled regimen of eating and exercising, combined with controlled breathing exercises under circumstances of online studying and working, results of which confirmed the effectiveness of the methodology applied.

The experiment outcome shows that the applied intervention led to significant improvements in body composition, respiratory function, the subjective perceived exertion, and bone density in the experimental group that distinguishes from the control group. Data confirmed the efficiency in

the applied methodology in the experimental group, by at the same time they reveal the unfavorable tendency upon absence of targeted physical activity or intervention.

On the grounds of the survey results and analysis of literature resources nine conclusions were formulated, which present the research outcome in short. The conclusions as a whole reflect the implementation of the set research tasks.

Drawn-up recommendations and contributions of dissertation were made on the basis of personally obtained data from the scientific research.

The dissertation work is well-written and terminologically precise.

The abstract is presented in 75 pages, consists of three sections and contains the main elements of the research made. The contents and quality of abstract meets the requirements of the Regulations of MU – Varna, by authentically and adequately revealing the general upshots of survey.

Two publications related to the thesis paperwork were presented.

To **conclude**, I consider that the dissertation submitted by Anushka Strahilova Uzunova under title “The impact of the COVID-19 pandemic on nutrition and physical activity of those involved in the educational process – trainers and trainees at the Medical College – Stara Zagora” demonstrates in-depth theoretical knowledge and research interest of the doctoral candidate. It meets the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations on Development of the Academic Staff in Medical University “Prof. Dr. Paraskev Stoyanov” – Varna.

Further to this I give my **positive evaluation** and recommend that the esteemed Academic jury shall take decision on awarding Anushka Strahilova Uzunova the educational and scientific degree “Doctor” in the field of Higher education: 7. Healthcare and Sport, professional field 7.4 Public Health, and scientific specialty “Health Care Management.”

18<sup>th</sup> August 2025

Sliven

Prepared

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

Assoc. prof. Pepa Dzhezheva, DrPH