

## **R E V I E W**

**By Prof. Sonya Koleva Toncheva, PhD, D.Sc.**

Deputy - Director of the Affiliate in Shumen, Medical University Varna

Member of the Scientific Jury, in accordance with Order No. 109-441/05.12.2024 of the Rector of the Medical University - Varna

**Regarding: procedure for filling the academic position of "associate professor" in area 7 "Healthcare and Sports"; professional field 7.4 "Public Health" and specialty "Public Health Management" for the needs of the Department of Social Medicine and Healthcare Organization, Board of Directors "Medical Ethics and Law", FOH at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.**

The current competition for filling the academic position of "associate professor" was announced in the State Gazette No. 85/08.10.2024 and one candidate participated in it –Martin Ognyanov Mirchev, PhD - Chief assistant at the Department of Social Medicine and Healthcare Organization, Educational Sector of Medical Ethics and Law, Faculty of Public Health at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

By Order No. 109-441/05.12.2024 of the Rector of the Medical University - Varna, I am appointed as a Member of the Scientific Jury and to prepare an opinion on the procedure for acquiring the academic position of "associate professor".

The candidate has submitted all necessary documents for the competition, in accordance with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the Regulations for the Development of the Academic Staff of MU-Varna.

### **I. Brief information about the candidate**

Chief Assistant Martin Mirchev graduated with a Bachelor's degree in Philosophy and obtained a Master's degree in History of Philosophy - Sofia University "St. Kliment Ohridski", respectively in 2010 and 2011. He holds a Master's degree in Law - Varna Free University "Chernorizets Hrabar" since 2015, and a Master's degree in Public Health - Medical University "Prof. Dr. Paraskev Stoyanov" since 2018. He has been successively a part-time (2014/2015), full-time assistant (2015–2019 and chief assistant - 2020 and to this date) at the Department of Social Medicine and Health Care Organization at the Faculty of Public Health, Medical University - Varna. He has acquired the scientific degree "Doctor" in "Public Health Management" since 2019 after successfully defending a dissertation on the topic "Ownership of Patient Information in the Context of Big Data".

Chief Asst. M. Mirchev strives to expand his theoretical and practical training through participation in forms of post-graduation education, which shape his research and teaching skills. In 2024, he has a recognized specialty in "Medical Informatics and Health Management". The candidate uses written and spoken English.

## **II. Evaluation of the scientific-research, educational and administrative activities of Chief Asst. Martin Mirchev, PhD.**

### **• General characteristics of the scientific-research and scientific-applied activities of the candidate**

In connection with participation in a competition for the academic position of "Associate Professor", in the specialty "Public Health Management", professional direction 7.4 "Public Health", in the field of higher education 7. "Healthcare and Sports" at the Faculty of Public Health, Department of "Social Medicine and Organization of Health Care", announced by the Medical University "Prof. Dr. P. Stoyanov" - Varna (SG issue 85/08.10.2024), Chief Asst. Mirchev has presented 12 scientific papers to the attention of the scientific jury. The scientific works of the candidate for participation in the competition are presented in a table, which reflect the scientific and research activity in the period 2019-2023.

#### **Distribution of scientific works by type:**

Habilitation work (monograph) - 1

Dissertation work - 1

Publications in journals and collections – 12

#### **Distribution of scientific works by language of publication:**

Publications in Bulgarian - 6

Publications in a foreign language (English) - 6

The publications are in Bulgarian and foreign journals. In 4 of the publications M. Mirchev is an independent author, in 6 publications he is the first author, and in 2 he is the second and subsequent to the total number of actual publications. Regarding the reflection of the candidate's publications in the national and foreign literature, a reference from the University Library of MU - Varna for 6 citations is presented. The report presents data for 14.886 Impact Factor. A report on the presence of active scientific profiles Google Scholar, ResearchGate ORCID, ResearcherID is also presented

The presented scientific production covers the minimum scientometric requirements for this competition.

I recommend that the author increase his publication activity in specialized scientific journals in our country and abroad.

### **• Assessment of the candidate's scientific research and applied scientific activity:**

The topic of the scientific research work of Senior Asst. Martin Mirchev is reflected in the scientific works submitted for review and can be summarized in 4 areas:

## Contributions related to the main directions of scientific works:

### **DIRECTION 1: Ownership of patient information in the context of Big Data (A1), (D7.1), (D7.2), (D7.3), (D8.7);**

There are 5 scientific works dedicated to this direction and scientific and theoretical contributions are outlined. A historical overview of the emergence and development of the Information Revolution and Big Data is made. The importance of Big Data for the healthcare sector is analyzed and the main challenges, risks, benefits and opportunities are presented, as well as the role of patient information in the context of Big Data;

The regulatory framework for the ownership and protection of patient information is presented and a comparative analysis of their regulatory regulation in Europe and the USA is carried out. For the first time in the Bulgarian scientific environment, the issue of ownership of patient information in the context of Big Data is considered. The concept of “ownership” is defined and its content is clarified in the specific context of patient information. Trends in the perception of patient information from the perspective of ownership are presented – as public or private, and an analysis of their advantages and disadvantages is carried out.

For the first time in Bulgaria, a philosophical-ethical analysis of the concept of personalization of patient information has been carried out through the application of basic philosophical approaches and teachings (ontology, epistemology, axiology and anthropology) and the basic principles of biomedical ethics (autonomy, non-maleficence, beneficence and justice).

Applied-practical contributions in the works of the direction relate to identified basic moral-ethical and normative problems related to the ownership of patient information in the conditions of Big Data; The philosophical-ethical analysis carried out by Mirchev gives him reason to propose two potential solutions: 1. Patient information and its useful uses to be regulated without an established right of ownership; 2. If the right of ownership is recognized, it should be limited in view of the possible useful uses for scientific and research medical purposes.

The methodology for conducting a scoping review in relation to the problem at hand, presented and applied for the first time in our country, is worthy of attention;

### **DIRECTION 2: Ethical Challenges to Digital Health and Technologies (B3)**

The direction coincides with the title of the habilitation thesis, presented by Chief Assistant Martin Mirchev, where contributions of a scientific - theoretical and applied - practical nature were made. Scientific-theoretical contributions in this direction:

A review of the leading technological trends in digital health for our time has been made, and attention has been paid to both the promising opportunities and potential benefits, such as the hopes associated with artificial intelligence and blockchain technologies, and the risks - primarily affecting patient/personal data, confidentiality and possible abuses related to the lack of transparency and clarity, who, when and why uses the data. **The historical analysis** of the interrelationships between technological evolution and the acceptance of changes in a social

context, as well as in the specific relationship between a doctor and a patient, concerns key aspects: keeping medical records, the emergence of options for remote patient monitoring, and the creation of digital-technological applications through which the patient himself “monitors himself”. It has been established that most doctors and patients are more inclined to accept digital innovations and conveniences.

**The author examines** the relationship between digital health and technology in the context of socio-technical systems and the complex interrelationships between “smart” digital technologies and social processes. The increasing dependence on technology and its transformation into something “natural” and intuitive for people is revealed.

**The philosophical analysis** and attempt to take stock of the impact of digital technologies on people is impressive – both in the context of medicine and healthcare, and in the conditions of social and everyday relationships. The transformation of life into a digitally measurable value hides risks of excessive search for an “effective” life, at the expense of the essence of “living”, which may allow deviations from digital stereotypes. In the light of the philosophical discussion, the question is raised: whether we are losing control over the digital technologies we create: Do they depend on us, or are we irreversibly overly dependent on them?

**The ethical analysis** places a specific focus on the risks of technological development – potential dehumanization of medical practice, and the consequences in view of individual autonomy and the bioethical principle of justice. Through the ethical analysis, the author also raises the issue of identifying and seeking moral, and hence normative, responsibility for potentially harmful consequences of digital technologies. The so-called “problem of many hands” is revealed, in which it is difficult to specifically identify responsible persons.

Various successful, unsuccessful and unfulfilled practices in the development of digital technologies are examined, noting the conflict between the big promises and, respectively, resource investments, and the real results. The emphasis in the reflection is on the need for a more balanced and tailored development in healthcare, taking into account the opportunities and current reality.

**The scoping review has an applied-practical** contribution in relation to the scope of the scientific literature and the academic attention to digital health in the light of specific keywords: ethics and privacy; the result of the study identifies the following thematic categories: **1. ethics** (basic principles; ethics in the use of new digital health tools); **2. privacy** (when using applications/wearable devices; and considered as a challenge/obstacle to digital health interventions/technologies); **3. ethics/privacy** in: research in the field of digital health (data collection, use, sharing); **4. policy and legislation** (for digital health applications); **5. artificial intelligence** and **6. blockchain** (in medicine and public health). The study shows that traditional ethical aspects in digital health are losing ground in favor of cutting-edge technologies, such as artificial intelligence and blockchain.

**DIRECTION 3: Medical ethics and ethical principlism – respect for autonomy; principle of justice; empathy and alienation, rule of veracity and trust between doctor and patient; bioethical prism to the issue of personal patient responsibility for health, as a factor for prioritization in healthcare (G7.4), (G8.1), , (G8.3), (G8.5);**

The scientific works presented in the direction have made contributions of a scientific and theoretical nature. The special relationships and dependencies between the fundamental principles of Bioethics and specific practical contexts have been studied. Attention has been paid to the challenges facing the role of medical authority and professional secrecy in relation to trust between doctor and patient. A complex interdependence has been established between the reality of historical events (negative emotions, political and economic crises, pandemic, wars, uncertainty, fear, etc.) and the tangible depersonalization and weakening of trust in authorities, including medical ones. The role of the easily accessible information and the risk of harm are discussed.

The relationship between ethical principles and rights (basic human and patient's rights) is examined, establishing that the existence of different rights does not exclude their relative weight, as well as contradictions between different rights of an individual. It is established that the distinction between violation of rights and restriction/infringement of rights is particularly important - violation of rights is always something unacceptable and reprehensible, while restriction of rights is a justified practice in the interest of the community.

The author draws attention to the problem of conflict points between empathy and alienation in the light of the doctor-patient relationship, examining whether patients are more inclined to trust and appreciate empathetic doctors, or are more concerned with their purely practical skills. It is established that emotional differentiation is necessary to ensure medical objectivity in emotionally charged situations, and to guarantee the absence of adverse consequences for the patient.

**DIRECTION 4: Social Justice in Times of Crisis: COVID-19; (D8.4), (D8.6), (D8.2).**

Only scientific and theoretical contributions have been made in this direction. The specific relationship between social justice and the bioethical principles of non-harm and beneficence has been studied. It has been established that if we recognize social justice in the fair relationships between individuals and society, and in the idea that as individuals we have our own social role, including responsibilities, then there is no better time than an emergency to exercise these responsibilities. It has been established that optimizing public health does not eliminate the need for adequate preparation for the redistribution of limited resources before this becomes an absolute necessity. In this sense, the decision to place restrictions on access to health care and treatment is not a discrediting decision, but a necessary response to the challenges posed by the emergency. In the context of social justice in times of crisis (COVID-19), the achievement of a balance between the legality and morality of anti-crisis measures and individual expectations for respect for traditional rights is examined.



Chief Asst. M. Mirchev studies the phenomenon of "escape from freedom", examining external restrictions and imposed boundaries, and those that individuals themselves set as a protective mechanism in conditions of uncertainty. It has been established that given the consensual and normative nature of external restrictions, they can be easily removed, but the internal ones - self-isolation and mistrust - can have very serious consequences.

• **Educational, pedagogical and administrative activity**

The candidate's teaching activity is over 9 years. He conducts lectures and exercises for 14 specialties and in English-language training in the specialties "Medicine" and "Dental Medicine". For the last five years, his teaching workload is over 400 hours, which exceeds the norm of an assistant at MU Varna (360 hours).

I consider it necessary to share personal impressions. I have known Martin Mirchev for more than 10 years, since the time he started working in the Accreditation and Quality Department at MU Varna. Open in character, communicative, inquisitive and consistent in his actions, he has established himself as a respected colleague and teacher. He has very good skills for teamwork and making management decisions. I highly appreciate his exceptional work capacity, thoroughness and rigor in scientific activity.

Martin Mirchev participates in the organizational and administrative activities of the Department of Social Medicine and Health Care Organization, the Educational Sector of "Medical Ethics and Law" as an administrative assistant.

**Conclusion**

On the basis of fulfilling the minimum scientometric requirements of the Development of Academic Staff in the Republic of Bulgaria Act and the Regulations on the Development of Academic Staff of MU-Varna, the presented scientific publications, teaching and professional experience give me grounds for my positive vote and to confidently propose to the esteemed Scientific Jury - Chief Asst. Martin Ognyanov Mirchev to occupy the academic position of "Associate Professor" in the field of higher education 7. Healthcare and Sports, professional field 7.4. Public Health, majoring in "Public Health Management", for the needs of the Department of "Social Medicine and Health Care Organization" at the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna.

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