

REVIEW

From Prof. NEVENA TZACHEVA, M.D., PhD, DSc

**OF THE SCIENTIFIC WORK PRESENTED FOR THE COMPETITION FOR
„ASSOCIATE PROFESSOR”
IN THE FIELD OF HIGHER EDUCATION 7. „HEALTHCARE AND SPORT”
OF PROFESSIONAL DIRECTION 7.4. „PUBLIC HEALTH ”
OF SCIENTIFIC SPECIALTY” KINESITHERAPY”,**

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**For the needs of Department “Rehabilitation and Marine Medicine” at the Faculty of
Public Health and Health Care,
University “Prof. Dr. Assen Zlatarov”, Burgas.**

According to Order № PK 80 / 13.03.2020 of the Rector of the University "Prof. Dr. Assen Zlatarov" Burgas for a scientific jury, as an external member, I promptly reviewed the submitted documents for the academic position "ASSOCIATE PROFESSOR" and found:

The only candidate is: **SENIOR ASSISTANT PROFESSOR YORDAN TODOROV GAVRAILOV, PhD**

1. GENERAL INFORMATION

1.1. Yordan Gavrailov graduated in 2002 with a Bachelor's degree in Kinesitherapy at the Faculty of Public Health and Health Care at the University of Ruse "Angel Kanchev". In 2009 he graduated with a Master's Degree in the same specialty and higher education institution. He continues to study and in 2015 acquired the Educational and Scientific Degree "Doctor" (theory and methodology of physical education and sports training) (including physical therapy) with a dissertation on "Kinesitherapy for children with bronchial asthma" in Professional direction 7.4 and in the scientific specialty "Theory and methodology of physical education and sports training (incl. Methodology of physical therapy) - diploma № PY-HC -2015-54, issued on 25.11.2015 by University of Ruse "Angel Kanchev".

1.2. He additionally qualifies in kinesitherapeutic areas of separate fields of medicine: internal diseases, otoneurologic conditions of the central nervous system, diseases of the musculoskeletal system, he researches as well the methodology of creating a dissertation, which is evident from the attached certificates: Certificate in Proprioceptive neuromuscular facilitation – Basic Course - Sofia, March 2012 – Bulgarian Association of Physiotherapy, International PNF Association, Certificate for Soft Tissue Mobilization of the lumbosacral area and lower limb – Burgas 08 – 10. 02. 2013 and a certificate for a specialized course on the legal basis and structure of the dissertation – 04.07.2013 – University of Ruse „Angel Kanchev”. All his trainings and qualifications give an idea of the scientific interests of Yordan Gavrailov in the fields of Kinesitherapy for internal diseases, Therapeutic massage, Electrotherapy and Kinesitherapy for vestibular dysfunctions. He masters and uses two languages at an intermediate level - French and English. He has computer skills and competencies in working with Word, MS Office, Internet.

1.3. Yordan Gavrailov started his professional route as a freelance kinesitherapist in the kinesitherapy salon of the Medical Center "St. George the Victorious", Burgas / 2006-2007 /. From 2007 to 2016 he was an assistant and since 2017 he has been a senior assistant at the Faculty of Public Health and Health Care at the University "Prof. Dr. Asen Zlatarov", Burgas. He also teaches at the Medical College of the University in the specialties "Medical Rehabilitation and Occupational Therapy" and "Rehabilitator". He has had a total work experience of 14 years during which he has worked and trained students in the acquired diploma specialty. In the period from 2011 to 2015 he was a member of The Association of Physiotherapists in Bulgaria. No other socially useful participations have been noted.

1.4. Senior Assistant Yordan Gavrailov is the leader of a research project related to the study of occupational stress in health professionals, which from the point of view of the physiotherapist is important for improving the physical and psychosomatic well-being of patients. This project is also important for occupational health in order to determine the sanogenic factors in primary and secondary health prevention. He has been a participant in 4 other intra-institutional research projects of the University important for

the training in rehabilitation and prevention of diabetes, thalassotherapy in diseases of the musculoskeletal system, as well as training - methods and approaches in the specialty "Medical Rehabilitation and Occupational Therapy".

II. SCIENTIFIC - RESEARCH AND SCIENTIFIC - APPLIED ACTIVITY

2.1. For participation in the competition was presented an independent habilitation thesis on "Kinesitherapy for vestibular dysfunction", the monograph in 2020 was published by the University of Burgas, in a volume of 160 pages / ISBN 978-619-7559-01 /. The presented scientific publications are 20 including 18 in co-authorship, they have been published in unreferred journals with scientific review or in edited collective volumes. The relevant declarations for equal participation are attached. Two textbooks are also presented: the published in 2015 "Medical and social rehabilitation of diabetes and its complications" in co-authorship with M. Stoycheva, V. Vassilev, A. Grozeva, V. Pancheva, Zl. Ivanova, S. Shopova /ISBN 978-619-7123-34-0 and in 2018 - "Prevention of occupational stress in health professionals" with co-authors Zl. Lecheva, S. Shopova /ISBN:978-619-7125-56-6/. The total number of publications Yordan Gavrailov presents to participate in the competition are 23, which correspond to 566.9 points and are above the required 450 points for the position, which fully complies with the Regulations of the University.

2.2. Main scientific directions in the publications and the projects realized by Senior assistant Yordan Gavrailov

2.2.1. Some of the publications are natural continuation of his diploma and academic training, participation in research projects and in writing curricula and manuals. The core of these publishing activities is the dissertation, as well as the publication in the collection of Scientific Papers of the Union of Scientists in Bulgaria - Plovdiv "Medicine, Pharmacy and Dental Medicine" volume XVIII 5-6.11.2015 /ISSN 1311-9427/ in co-authorship with J. Papataniou, St. Yanev, St. Troev, K. Kanalev and K. Elhova for "Algorithm and methodical directions for respiratory gymnastics in children with bronchial asthma". One of the leading topics is involved, namely the prevention of health status in patients with bronchial asthma and first of all the studied effect of kinesitherapy program in patients with bronchial asthma and in particular the impact of different methods with choice of method according to the stage of the disease. In a number of publications, mainly of an applied

nature, the issues of treatment of asthma patients at home are studied, as Gavrailov and the co-authors focus on measuring the functional parameters of respiration, psycho-emotional status including the training of asthmatics as one of the most important goals of kinesitherapy and a natural consequence of the procedures with the obligatory, so called by the authors, retraining.

2.2.2. The application of Spa and wellness effects has been presented as another direction in the scientific production, they have educational significance. These are the publications, mainly co-authored, aimed at improving the quality of education and training of health care professionals through modern methods and approaches, ensuring the integrity and completeness of the patients and clients taken care by the Spa and Wellness Centres. As a new scientific - applied search with a contribution, I consider the application of research with kinesitherapeutic agents as impact on vestibular function. The author's publications which are co-authored emphasise on the analysis of the kinesitherapeutic agents that affect the balance, as the anatomical - physiological features of the vestibular system have been studied correctly. The publications that refer to these procedures, which are also an element of the prevention of cardiovascular diseases, to the so-called needle-free mesotherapy and the dietary regime as a targeted reduction of cellulite in patients, contribute to the education of students and the improvement of the qualification of Spa therapists. with obesity and a number of other socially significant diseases. This is essential both in training of future rehabilitators and physiotherapists and in reducing the overall level of this part of the morbidity, which concerns, in different circumstances, including the actual period of restrictive measures, a large part of the population at the same time at different age and part of different risk groups.

2.2.3. The efforts of Gavrailov and co-authors to implement health care through the rehabilitation of socially significant diseases and in particular diabetes mellitus and its complications - diabetic foot, diabetic polyneuropathy, as well as participation in a textbook, speak a lot of a close connection between research with opportunities for students to be best informed. This applies to innovative forms, methods and approaches of treatment and prevention of diabetes and its complications, as well as to a systematic approach to rehabilitation through natural and / or reformed physical factors. An expression of these contributing elements is the created complex medical and social rehabilitation, health care and prevention. This inevitably leads to good practice in

protecting public and occupational health.

2.2.4. Application of physical therapy for impact in case of systemic connective tissue disease in childhood, as well as publications related to **research and kinesitherapeutic agents for impact in case of vestibular function** have a focus on the **applied nature of the contributions** in the work of Yordan Gavrailov. Causes of functional deficits of the vestibular system are also indicated, which on one hand are chronic diseases leading to loss of ability to balance. The team researches very successfully in the same direction the quantitative assessment of the risk of falling through the standard Berg Balance Scale. Another important element is the analysis of the results of this test and directs specialists to patients in the high and medium risk group, and they in turn to otoneurologists for treatment and rehabilitation. Juvenile idiopathic arthritis, which is a common systemic connective tissue disease in childhood and causes disability, also makes part of this group of scientific and applied contributions to the candidate's publications. Despite the fact that the degree of disability may be reduced, the authors believe that a number of patients remain in the active phase of the disease. The team of researchers offers a very successful set of complex training program in kinesitherapy, which corresponds to the phases of the disease. This innovative direction for training children and their parents in the correct implementation of the means of kinesitherapy from therapeutic massage, physical factors, therapeutic exercise and psychological integrated interventions greatly reduces, according to research, the risk of recurrence.

2.2.5. Prevention of stress and especially occupational stress are the publications, most of them co-authored, focusing on the diagnosis and the levels of manifestation of **occupational distress in health professionals working in hospital health care.** The developed models and tools for prevention and effective management of work stress are essential for public health and the provision of modern health care. Being a research supervisor of the University research project on "**Study of occupational stress in health professionals**", he focuses on diagnosing the symptoms and levels of occupational stress in health professionals working in hospital health care, on developing a **model and tools for prevention and effective work stress management of health professionals working in hospital structures,** as well as to trainees - students, specialists, and to trainees - teachers and mentors, which I find a successful and innovative combination of project

objectives for educational structures and teaching-practical bases. The developed complex program for stress prevention with Spa effects and the applied integrated methods for stress reduction represent an improvement in the right direction of kinesitherapy.

2.2.6. Another direction of the publications with a contributing nature is related to specialized massage techniques and tools for therapeutic massage, in which the co-authors of the publication on massage techniques from Chinese traditional medicine to help patients with Meniere's disease, discuss and apply with precision and depth. There are two independent publications from an International Conference in Serbia in 2019, which play an important role in this same direction.

Yordan Gavrailov's activities in this direction must continue and, as a habilitated person, they should lead him in his research and teaching activities.

I believe that the research - applied activity presented through the publications and participations in the projects of Yordan Gavrailov is developing in the right direction in order to unite theory and applicability of the formulated theoretical models with applied techniques, as well as his participation in scientific projects. It is necessary to increase the publishing activity precisely in the direction of the practical activity, which is obviously very diverse and multifaceted.

Public benefit activities such as participation in reactionary collegial teams, scientific societies, various health forums recommended by the WHO are also important for this specialty - kinesitherapy and can lead to good results for public health and gradually change health policy in this area. of prevention.

2.3. According to the attached reference with noted citations in a monograph and collective volumes with scientific review are 11. In the monograph on health and ergonomic working conditions, the citation is from Gavrailov's independent participation in an international conference, which makes it a guideline for the candidate's development in instrumental / massage / rehabilitation techniques aiming to improve the impact of working conditions on the health of working people.

III. EDUCATIONAL AND TEACHING ACTIVITY

3.1. Senior Assistant Yordan Gavrailov teaches 2 approved disciplines at the University "Prof. Dr. Assen. Zlatarov" Burgas: "Kinesitherapy" in the specialty "Medical Rehabilitation

and Occupational Therapy", Bachelor's Degree, full-time studies, and Kinesitherapy in the Rehabilitation Specialty, Bachelor's Degree training, full-time studies.

He participates in the development of curricula in the taught disciplines, as well as in the programs for "Study practice and undergraduate internship" in the specialty "Medical Rehabilitation and Occupational Therapy", Bachelor's degree, full-time studies.

In the co-authored textbooks, Gavrailov discusses essential and important topics for the medical and social rehabilitation of patients with diabetes and those with complications, as well as for the prevention of occupational stress in health professionals. **These are, in fact, two main parts of the constructive and secondary prevention, which are currently insufficiently represented in the health policy and are well developed in the educational concepts of the Faculty of Public Health and Health care. I definitely think that this is important for all trainees - students, therapists, staff of wellness centres for the acquisition of knowledge, skills and competencies in this area.**

In the co-authored textbooks, the common notion of Spa and wellness centres is disproved, namely that they are considered only places for beauty and relaxation services. In fact, as it has been repeatedly emphasized, these are health-enhancing and health-improving procedures. The creation of training programs is also the basis of the requirements for various management competencies in this specific health-relaxing environment. The authors adhere to the correct understanding of the managers in the Spa and Wellness Centres, as managers with knowledge in the field of shown and contraindicated conditions for conducting procedures in different disease groups. In the context of e-health, the proposal for training with various computer programs is also of interest in these textbooks, as well as specialized software and the acquisition of knowledge and skills in this field.

3.2 Senior Assistant Yordan Gavrailov has had a sufficient teaching activity for the last 5 years, preparing practical activities, internships and undergraduate internships, duly certified according to the administrative requirements of the Regulations. His average annual activity is 586.96 school hours and exceeds the required 360 school hours. The descending teaching activity of 723 hours for 2015/2016 up to 408.4h. for the 2019/2020 academic year attracts attention. As I said above, Yordan Gavrailov can expand the field of teaching as a habilitated person and thus contribute with new ideas and programs to existing disciplines and new specialties that need to teach knowledge for the prevention of a number of socially significant

diseases, as well as for health promotion. This contributes to the integration of public health science and practice into the guidelines in the EU's public health and WHO programs for "Health for All in the 21st Century".

Based on the scientific production, scientific interests, the registered volume of educational activity in the training of students and the prerequisites for the developed socially useful activity, with full conviction I give my opinion to the members of the Distinguished Scientific Jury, Senior Assistant Yordan Todorov Gavrailov, PhD, to receive a positive assessment, to be awarded the academic rank of "Associate Professor" in the scientific specialty "Kinesitherapy" for the needs of the Department of Rehabilitation and Marine Medicine at the Faculty of Public Health and Health Care, University "Prof. Dr. Assen Zlatarov", Burgas.

REVIEWER:

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