

STATEMENT

**From Assoc. Prof. Katya Genova Eguruze, PhD
Department of Nursing Care
Faculty of Public Health
Medical University – Varna**

Regarding the doctoral thesis of Stoyanka Hristova Yancheva

On the subject of: NURSING APPROACH IN PATIENTS WITH OBSTRUCTIVE SLEEP APNOEA – ASSESSMENT OF PHYSIOLOGICAL CHANGES AND BENEFICIAL EFFECTS

For awarding the educational and scientific degree “Doctor”
Higher education area 7. Healthcare and Sports
Professional field 7.4. Public Health
Scientific Specialty: Health Care Management

Research Supervisors: Assoc. Prof. Mariana Nikolova Dimitrova, PhD
Prof. Mario Petrov Milkov, MD, PhD

I have been appointed as a member of the Scientific Jury by Order No. P-109-351/18.07.2023 of the Rector of Medical University "Prof. Dr. Paraskev Stoyanov" – Varna. I have been tasked to prepare a position statement on the procedure for awarding the educational and scientific degree “Doctor” to Stoyanka Hristova Yancheva at the Medical University – Varna under Minutes Summary No.1/28.07.2023.

Details of the procedure

Stoyanka Hristova Yancheva was admitted to pursue a full-time doctoral degree in the doctoral program Health Care Management in the field of higher education 7. Healthcare and Sports, professional field 7.4 Public Health by Order № P-109-506/04.11.2020 of the Rector of the Medical University – Varna.

She was given authorisation to defend her doctoral thesis by Order No. P-109-351/18.07.2023 of the Rector of MU-Varna. The Rector’s order was based on the Minutes Summary No. 208/07.07.2023 of the Public Health Faculty Council, Report No. 102-1489/19.06.2023 by Prof. Sylvia Borisova, PhD, Head of the Department of Nursing Care, and Report No. 104-710/12.07.2023 by Prof. Antonia Slavcheva Dimova-Yordanova, PhD, Dean of the Faculty of Public Health.

All necessary documentation required by the Development of the Academic Staff in the Republic of Bulgaria Act (DASRBA), its implementation rules, and the relevant Rules and Regulations of MU-Varna for academic staff development have been submitted.

Biographical data and career profile of the PhD student

Stoyanka Hristova Yancheva graduated from Dr. Nencho Nikolaev Institute for the training of health personnel with a Secondary Special Education, speciality General Nurse in

1987. In 1994, she upgraded her post-secondary medical education at the Semi-Higher Medical Institute – Varna in the same speciality. In 2001, Yancheva obtained a Bachelor's degree and, in 2018, a Master's degree in Health Care Management at the Medical University – Pleven.

Her professional career began in 1987 at the Clinic of Pneumology and Phthysiology at St. Marina University Hospital – Varna. Since 2017, Stoyanka Yancheva has been a lecturer and, since 2019, an assistant professor at the Department of Nursing Care at the Faculty of Public Health, Medical University – Varna. The classes she lectures are related to her professional career and scientific interests: Philosophy and Introduction to Nursing, Nursing care of patients with somatic diseases, Nursing care of patients with oncological diseases, and Nursing care of mentally ill patients. She is actively involved in the clinical practice of students.

Stoyanka Yancheva has participated in conferences and scientific forums and has published papers and scholarly reports, some of which are related to the thesis subject. She is a member of the authorship teams of two textbooks for Nursing. She has participated in a number of continuing education courses. Yancheva is fluent in Russian and also uses English in her research pursuits.

Stoyanka Yancheva is a member of the Bulgarian Association of Healthcare Professionals, the Bulgarian Public Health Association, the Bulgarian Scientific Society of Public Health, the European Public Health Association (EUPHA) and the Bulgarian Psychiatric Association.

General characteristics of the thesis

The thesis is presented on 211 pages, following the common format for the professional field. It is structured in five chapters and is richly illustrated with 95 figures, 10 tables and 4 appendices.

The bibliography includes 269 sources, of which 68 are in Cyrillic and 201 in Latin. The international sources prevail in light of the inadequate research on the matter in our country.

Assessment of the relevance of the issue

Obstructive sleep apnoea is a syndrome of undisputed medical and social significance due to its widespread prevalence and adverse health consequences for working-age people. Specialists studying the problem are focusing their efforts on the pursuit of therapeutic strategies and methods of dealing with it. The gravity of the disease is determined by the high levels of incidence and morbidity among middle-aged men and women, as well as the risk of disability from untimely and inappropriate treatment. On the other hand, the diagnosis and treatment of Obstructive Sleep Apnoea necessitate the use of multidisciplinary cooperation and a personalised approach.

The problem is highly relevant to our country. There are unresolved issues related to diagnosing, treating, and caring for patients with obstructive sleep apnoea. Training, good communication, cooperation in the team and the inclusion of a nurse in it, awareness, accessibility of equipment, and the cost of the service determine treatment success.

As part of multidisciplinary teams, modern nurses should be prepared to actively participate in the diagnostic and therapeutic process of patients with Obstructive Sleep Apnoea Syndrome (OSAS). Their involvement in sleep medicine care will bring us closer to the best nursing practices successfully applied worldwide, help personalise care for these patients, and

improve their quality of life. This makes the subject of Stoyanka Yancheva's thesis worthy, timely and suitable for a thesis project.

The literature review is structured in six parts, which consistently and thoroughly trace the main aspects relevant to the problem studied by the PhD student. The accurate selection of scientific data is skilfully tailored to the specific research requirements.

It begins with a historical overview tracing the origin of Obstructive Sleep Apnoea Syndrome. A retrospective analysis of sleep medicine is presented. The scientific pursuits of sleep medicine researchers in the United States and Europe are presented. An overview of the advancement of sleep medicine in Bulgaria is conducted, the current difficulties are pinpointed, and potentials for their solution are highlighted.

The doctoral student has comprehensively studied and presented the current aspects of diagnosing, treating, and follow-up of patients with Obstructive Sleep Apnoea.

The somnological patient profile is presented with behavioural patterns and health-related factors, which clarify the issues at hand.

Stoyanka Yancheva's extensive professional experience helps to provide an in-depth analysis of nursing activities and their benefits on the health of individuals with the syndrome. A unique importance is placed on introducing new methods in nursing practice in somnology. The international experience of somnological care in nursing practice is comprehensively presented.

The literature review concludes with substantial findings and conceptions based on a thorough and comprehensive current literature research.

The research methodology is detailed and includes: aim, tasks, hypotheses, theoretical study, a three-faceted quantitative study, qualitative study and research organisation.

The aim of the thesis is clearly and accurately formulated: To investigate and evaluate the organisation of health care for individuals with obstructive sleep apnoea, to ascertain the nurse's role in the phases of the somnological process and from this point, to offer solutions to optimise care. Seven tasks are outlined to achieve the aim, covering all aspects of the research carried out by Stoyanka Yancheva. Four hypotheses are formulated.

Each of the studies conducted is correctly described in detail. The quantitative study in three categories (nurses, patients, and physicians) includes the object and scope of the study, as well as the inclusion and exclusion criteria. The stages of research are presented in detail, reflecting the specific activities, timing and location.

The attached toolkit is self-developed and includes an in-depth interview questionnaire and three versions of questionnaires. It is tailored to the specifics of the data collection, described in detail and presented in the thesis. The doctoral candidate used a wide range of methods adequate to the set aim and objectives: sociological and statistical methods of data processing and analysis.

Results and discussion

The thesis presents the results obtained from the conducted research, structured and logically outlined in chapter three, after their statistical processing.

Three categories of respondents were included in the study:

- Nurses working in structures for diagnosis, treatment and follow-up of patients with OSA;

- Experts – physicians experienced in the treatment of sleep-disordered breathing;
- Patients diagnosed with Obstructive Sleep Apnoea Syndrome through polysomnography and polygraphy, conducting PAP treatment.

The presentation of results in each study group begins with a complete and comprehensive sociodemographic profile.

Nurses' awareness of OSA issues was examined. Nursing care for those with the syndrome is deemed of utmost importance, which proves beyond doubt that good somnological care covers the period of diagnosis, treatment, control and follow-up, planned and implemented by trained health care professionals.

The opinions of physicians working with patients with Obstructive Sleep Apnoea in hospital and pre-hospital settings of eight cities in the country regarding the nurse's role in caring for people with the syndrome were studied. The analysis of the results shows that most experts (96.70%) believe that individuals with OSA need nursing care administered by qualified nurses as full-fledged members of the multidisciplinary somnology team, with their functions and responsibilities. The majority of professionals (86.70%) are resolute that the establishment of autonomous nursing practices will improve the quality of life of these patients.

Patients' level of awareness on issues related to the syndrome under consideration was evaluated, and the sources for obtaining information on sleep problems were clarified. Of interest are the results obtained after analysing the respondents' opinions on control, follow-up and duration of treatment. The difficulties that patients diagnosed with OSA encounter most often are indicated. The study results have allowed the doctoral student to outline the patient's profile with Obstructive Sleep Apnoea in our country.

The results of an in-depth interview with OSA patients undergoing PAP treatment and a follow-up over time are presented. Seven patients were diagnosed by polysomnography and three – by polygraphy. The interview data is structured in line with the thematic areas outlined in the methodology. Most respondents reported that their impaired quality of life and the medical and social consequences of the syndrome appeared to be the main reasons for seeking help. Despite patients' lack of knowledge of the nurse's specific role in the overall process of somnological care, the results undeniably demonstrate the need for specially trained nurses in somnological practice.

For the purpose of the study, the opinions of the three groups of respondents on issues of public health were investigated. Most (70%) of the patients and (56.40%) of the nurses communicated that the public does not define Obstructive Sleep Apnoea as a health problem requiring prompt consideration, which is a serious concern.

I highly appreciate the doctoral student's initiative to optimise the care of patients with obstructive sleep apnoea (in chapter four) through the developed *proactive approach to nursing care in educating OSA patients*. Its purpose is to highlight the positive aspects of education and its impact on patient functioning at each stage of nursing care. The author-developed *Patient's condition assessment card during specialised sleep examinations* will ensure that an individualised approach to diagnosis, treatment, and care of each patient can be implemented. The study results support the need for targeted educational training and increasing the proficiency of nurses in providing care for patients with Obstructive Sleep Apnoea Syndrome.

Conclusions and contributions

Fifteen conclusions are formulated, which logically follow from the preceding analysis, accurately reflect the results obtained from the theoretical, quantitative and qualitative study, and show compliance with the aim and objectives of the presented research.

I acknowledge the formulated thesis contributions of a cognitive-theoretical and practical-applied nature.

The contributions of undeniable practical-applied character are the developed *conceptual pilot project "Organisation of diagnosis, treatment and follow-up of patients with OSA", the proactive approach to nurse participation in the training of OSA patients, the author's card model for assessing and monitoring medical changes in the condition of the patient with OSA and the thematic course for postgraduate training of nurses in two modules.*

The doctoral student has presented a list of thesis-related publications and participations in scientific forums: there are three thesis-related papers.

The thesis summary is structured as required and accurately mirrors the content of the thesis.

Personal impressions

I have known Stoyanka Yancheva since 2008, first as a lecturer and later as a full-time assistant professor at the Department of Nursing Care at MU-Varna. Her extensive professional background and a perfect balance of theory and practice are highly valued. In a short time, Stoyanka Yancheva has established herself as a respected lecturer among the students. She possesses teamwork skills, displays great tolerance and honesty in her interactions with others, and is always willing to provide assistance and aid, which makes her an invaluable colleague. I have immense respect for her sustained effort towards her professional development and improvement based on solid knowledge, responsibility, precision and diligence.

Conclusion

This thesis is the first of its kind to thoroughly, comprehensively, and purposefully research the issues of patients with Obstructive Sleep Apnoea, to determine the need for nursing care at each stage of the sleep apnoea process, and to interpret the benefits of implementing modern nursing practices and models. Its timeliness, precision, and high scientific and undeniable practical value distinguish it. It showcases Stoyanka Yancheva's thorough theoretical background and professional qualifications, proving her remarkable research capacity.

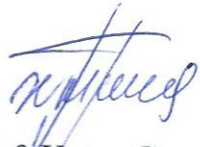
I believe that the thesis meets all the requirements of the Development of the Academic Staff in the Republic of Bulgaria Act (DASRBA), its implementation rules, and the relevant Rules and Regulations for academic staff development of the Medical University – Varna.

Having considered the above, I give my affirmative vote and confidently suggest to the esteemed Scientific Jury to award the educational and scientific degree "Doctor" in Health Care Management to Stoyanka Hristova Yancheva.

01/09/2023

Varna

Prepared by:


/Assoc. Prof. Katya Genova, PhD/