

OPINION

by Assoc. Dr. Gena Georgieva Penkova, MD, PhD

for the dissertation of Stoyanka Hristova Yancheva

on the subject "Nursing approach in patients with obstructive sleep apnea – assessment of physiological changes and beneficial consequences"

By Order R-109-351 / 18.07.2023 of the Rector of the Medical University - Varna I have been appointed as a member of the Scientific Jury, and on the basis of Protocol No 1 / 28.07.2023 I was appointed to prepare an opinion on the procedure for acquiring the educational and scientific degree "Doctor" under Doctorate health care management programme, professional field 7.4 Public health, field of higher education 7. Health and Sport, with a candidate Stoyanka Hristova Yancheva, full-time PhD student at the Medical University "Prof. Dr. P. Stoyanov" – Varna.

Short biographical data and career development of the PhD student

Stoyanka Hristova Yancheva was born on 27.02.1966 in Devnya. She has gone through all stages of academic education for health specialists: secondary special nurse education (1985-1987); semi-higher medical education (1994); acquiring educational degree of "Bachelor" (2001) and "Master" (2018) in the specialty "Health Care Management"; full-time PhD student at the Department of Health Care, Faculty of Public Health, Medical University of Varna (2020-2023).

Stoyanka Yancheva has extensive professional experience as a nurse – in the Clinic of Pneumology and Phthisiatrics (1987-2020) and since 2021 in the Second Psychiatric Clinic of the University Hospital "St. Marina" - Varna. This is an important prerequisite for her effective teaching and scientific activity.

Since 2017, she has been involved in the training of nurses as a lecturer, and since 2019 she has been elected as an assistant professor at the Department of Health Care. Her teaching activities include: classes in 4 disciplines (Philosophy and Introduction to Nursing. Practical Foundations of Nursing; Nursing Care for Patients with Somatic Diseases; Nursing Care for Patients with Cancer; Nursing care for the Mentally Ill), conducting Clinical Practice and Pre-Graduate Internship of Nursing Students.

Ass. Prof. Stoyanka Yancheva is an author and co-author in 14 scientific publications and in a number of guideline textbooks for the specialty of nursing. She has participated in 9 scientific forums, in 2 European projects and in courses and training programs in Bulgaria and abroad.

She is a member of the BAPZG, BAOZ, BNDOZ, EUPHA and the Bulgarian Psychiatric Association.

General characteristics of the dissertation and its relevance to the topic

The dissertation works contain 211 pages and are structured in five chapters: 1. Literature review – topicality of the problem; 2. Methodology of the dissertation; 3. Own results and discussion; 4. Optimizing the care for patients with obstructive sleep apnea (summary, conceptual design); 5. Conclusions and contributions. The dissertation includes 10 tables, 95 figures and 4 annexes. The bibliographic list uses 269 literary sources, of which 68 in Cyrillic and 201 in Latin.

Relevance of the dissertation. The PhD student has directed her scientific interest to an extremely important problem, the relevance of which she perfectly justifies in the concise and informative introduction. Obstructive sleep apnea (OSA) is a socially significant disease with a significant impact not only on the quality of life of the patients themselves, but also with serious social consequences for families and society as a whole. At the same time, the OSA is a systematically underestimated problem in our country. There is not even a clinical pathway for this disease, and the costs paid by the patients are significant. The level of awareness of society as a whole and the awareness of a significant part of medical professionals about the severity of the disease is low. The OSA is considered primarily as a medical problem, without awareness of the role and place of nurses in the health care of such patients. Nurses occupy a key position in the health team and have the greatest opportunities for monitoring, communicating and educating patients how to deal with specific diseases. In this sense, the PhD student has focused her attention correctly on studying the complex of factors determining the effectiveness of health care in patients with OSA and the place of nursing care in this process.

Evaluation of the structural parts of the dissertation

The literature review is an extremely thorough consideration of the wide range of problems associated with the OSA. Starting with a brief historical review of the occurrence of OSA syndrome, the PhD student logically traces the modern aspects in the diagnosis, treatment and follow-up of patients with OSA, its medical, financial and social dimensions, the introduction of new methods in the nursing practice in the field of somnology and international experience in 4 advanced countries - USA, Switzerland, Germany, France.

The review is written in a very good academic style with a well-formulated summary and conclusions. In terms of volume, the literature review is in good

proportion to the entire dissertation (26.5% to the entire volume). The literary sources used are quoted fully and accurately. Most of them are from the last two decades.

The aim of the study is formulated briefly and clearly: "To study and evaluate the organization of health care in persons with obstructive sleep apnea, to determine the place of the nurse in the stages of the somnological process and on this basis approaches to optimize care are proposed."

Seven specific tasks have been formulated to achieve this objective. One of the tasks has a specific applied focus – developing approaches to activities and increasing the competences of nurses working in treatment structures providing care for patients with OSA. This underlines even greater importance to the development.

Four research hypotheses have been formulated that correlate well with the tasks set.

The methodology of the study is presented in greatest details. The dissertation includes: **a descriptive (theoretical) study** in the form of a critical analysis of the available literature on the problem; **quantitative sociological survey** through **self-administered questionnaire** among 250 surveyed persons (140 nurses, 80 doctors and 30 patients with OSA) and a **qualitative sociological survey** in the form of an **in-depth interview** with 10 patients. The criteria for inclusion of persons in the study groups and the structure of the three types of self-administered questionnaires are described in details. The data are organized and analyzed using appropriate statistical methods of descriptive and inferential statistics.

The overall design of the study is a proof of the PhD student's in-depth knowledge and mastery of modern methodological approaches in the field of socio-medical research.

The results are presented in a logical sequence separately for each of the three groups of persons using appropriate types of graphic images, accompanied by a relevant discussion.

A particularly valuable and innovative part of the dissertation is the in-depth interview.

The results and their discussion fully support the scientific hypotheses formulated by the PhD student. Among all three groups of surveyed persons, the prevailing was the positive attitude towards the need of improving the nurses' training, acquiring specific competencies for working with patients with OSA and expanding nurses' role in the somnological team.

The dissertation summary reflects very well the content of the dissertation and presents in full the methodology, results and conclusions.

I fully accept **the theoretical and practical contributions** indicated by the doctoral student. The dissertation is indeed the first comprehensive study conducted in

Bulgaria that outlines the complexity of the problems of patients with OSA. For the first time, new guidelines are presented to optimize the role of nurses in the somnological team. The author suggests some new approaches such as a conceptual design of the role and place of the nurse in the different stages of the development of the GMS; a proactive approach to nurses' participation in the education of OSA patients; a model of a map for assessing and monitoring the condition of patients; thematic course for acquiring clinical and scientific knowledge in the field of somnology.

Conclusion

The presented dissertation is distinguished by its topicality, originality, methodological innovation and precision. The overall organization and conduct of the study is the PhD student own contribution and an evidence for her good opportunities for research.

The dissertation "Nursing approach for patients with obstructive sleep apnea – assessment of physiological changes and beneficial consequences" fully meets the requirements of the Rules for the Development of Academic Staff at the Medical University of Varna. I definitely give my positive opinion and propose to the honorable members of the Scientific Jury to vote positively for awarding the educational and scientific degree "Doctor" to the Assist. Prof. Stoyanka Hristova Yancheva.

24.08.2023 г.

Pleven

Prepared by:



Assoc. prof. Gena Penkova, MD, PhD