

OPINION STATEMENT

by

Assoc. Prof. Dr. Kiril Svetoslavov Nenov, MD

on the doctoral dissertation for awarding the scientific degree

“Doctor”

to Dr. Alexandra Borislavova Stavreva

TOPIC:

Analysis and Assessment of Psychological Factors in Patients with Chronic Kidney Disease in Predialysis and Dialysis Stages

Scientific supervisor: Prof. Dr. Svetla Vasileva Staykova, DSc

By Order № R-109-401 of 30.09.2025 issued by the Rector of the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna, and according to Protocol of the Faculty Council in Medicine № 46/29.09.2025, I was appointed as a member of the Scientific Jury for the awarding of the educational and scientific degree “Doctor” in the higher education area:

7. Health and Sports, professional field

7.1. Medicine, specialty Nephrology.

Following discussion, the dissertation was submitted for defense to the Departmental Council of the Second Department of Internal Medicine at the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna.

BIOGRAPHICAL DATA of Dr. Alexandra Borislavova Stavreva:

The PhD candidate graduated in Medicine from the Medical University “Prof. Dr. Paraskev Stoyanov” – Varna five years ago. Since August 2021, she has been working as a physician in the Clinic of Nephrology and Hemodialysis at St. Marina University Hospital – Varna. In September 2021, she was appointed as a part-time assistant at the Department of Nephrology, Hemodialysis, and Toxicology, and since November 2022 has held the position of full-time assistant and resident. She teaches fifth-year medical students.

She has excellent command of German and English.

Analysis of the Dissertation:

The dissertation consists of **122 standard pages**, illustrated with **12 tables**, **10 figures**, and **4 appendices**.

The literature review includes 213 sources (2 in Cyrillic and 211 in Latin), the majority published within the last three years. The review provides a detailed examination of psychological factors in patients diagnosed with chronic kidney disease (CKD) and those undergoing chronic dialysis treatment, as well as the underlying causes of these factors. CKD is identified as a significant and growing health challenge in which, alongside biomedical aspects, increasing importance is placed on psychological and psychosocial influences that determine patient adaptation, quality of life, and therapeutic adherence.

After an in-depth and critical analysis of the literature and highlighting of unresolved issues, the **aim of the dissertation** was defined as:

To analyze the manifestation of psychological factors in patients with CKD in predialysis and dialysis stages, and to assess their impact on survival in patients undergoing chronic hemodialysis treatment.

The chosen topic is **highly relevant and socially significant**, stemming from the growing number of patients in predialysis and dialysis stages and the need for medical professionals to apply appropriate approaches to their treatment. Studying psychological factors—such as stress, depressive experiences, social support, treatment motivation, and illness perception—is crucial for optimizing care and improving therapeutic outcomes.

To achieve the goal, the following main tasks were formulated and fulfilled:

- To compare patients in predialysis and end-stage CKD regarding stress, depressive experiences, and social support.
- To assess the prevalence of the studied factors among predialysis CKD patients.
- To determine the prevalence of psychological factors among patients undergoing chronic dialysis treatment.
- To perform a correlation analysis of the most prominent signs related to subjectively perceived factors—stress, depressive experiences, and social support—in CKD patients in predialysis and dialysis stages.

A total of **90 CKD patients** were examined, divided into two groups: 30 predialysis patients and 60 on chronic hemodialysis, treated at the Clinic of Nephrology and Hemodialysis, St. Marina University Hospital – Varna. Their psychological state was assessed during hospitalization and during regular hemodialysis sessions. Inclusion and exclusion criteria were clearly defined.

The results were thoroughly analyzed in accordance with the stated goals and objectives. The data obtained from the 90 studied patients were compared with those from the literature review. **Quality of life** was also assessed in patients undergoing chronic hemodialysis.

Following comparison and discussion of the results, **eight main conclusions** were formulated:

- Higher stress levels were found among hemodialysis patients compared to those in the predialysis stage of CKD.
- Significantly higher values of depressive experiences were reported among dialysis patients compared to CKD-diagnosed patients.
- Correlation analysis showed that in predialysis CKD patients, stress, nervousness, and tension were in a stronger positive relationship.
- Higher levels of social support indicators were found in CKD-diagnosed patients compared to the hemodialysis group.

Contributions:

- **Theoretical contributions**, the main one being the comparison of psychological factors—stress, depressive experiences, and social support—between predialysis and dialysis-stage CKD patients.
- **Practical contributions**, including the implementation of programs and the development of psycho-emotional screening aimed at prevention, treatment, and follow-up of CKD and chronic dialysis patients.

CONCLUSION

The dissertation has both practical and theoretical significance. The scientific contributions are **the first of their kind in Bulgaria**. Among hemodialysis patients, **stress and depressive experiences** play a key role in the adaptation process. **In the predialysis stage, social support is crucial** for patients' psychological resilience and adaptive mechanisms.

Dr. Alexandra Stavreva has **four publications** related to the dissertation.

The dissertation is written in a clear and precise language and demonstrates good scientific style.

FINAL STATEMENT

Based on the presented data, I conclude that the dissertation of Dr. Alexandra Stavreva meets all the requirements for awarding the educational and scientific degree "Doctor" in Nephrology. I vote in favor and recommend that the other members of the Scientific Jury also vote positively.

Assoc. Prof. Dr. Kiril Nenov,

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