

Opinion for the NSA "Doctor"

OPINION

by Assoc. Dr. Boryana Emanuilova Avramova, PhD,
from the Department of Paediatrics of the Medical University - Sofia,
external member of the Scientific Jury, appointed by order
№ 109-150/13.03.2025 of the Rector of the Medical University - Varna,
in the procedure for obtaining the educational and scientific degree "Doctor" in the field
7. "Health and Sport" in professional field 7.1. Medicine and specialty "Paediatrics"

"Quality of life after treatment of malignant haemopathies and solid tumours in childhood"

Scientific supervisors. Prof. Valeriya Ignatova Kaleva, MD

Prof. Dr. Kaleva, MD, PhD. Dr. Paraskeva Mancheva Draganova, PhD

1. General presentation of the procedure and the PhD student

The submitted set of materials on paper/electronic media is in accordance with the Regulations on the Conditions and Procedures for the Acquisition of Educational and Scientific Degrees and for Holding Academic Positions at the Medical University - Varna, and includes the following documents:

- Application to the Rector of Medical University - Varna for disclosure of the procedure for defence;
- Order for enrolment - original;
- Protocol of the Department of Paediatrics of MU-Varna for enrolment with the right of defence;
- Protocols of passed examinations according to the individual study plan;
- Diploma of higher education-copy;
- Creative CV;
- List of publications with signature of the candidate;
- Abstract (at least 5 copies);
- Dissertation

Dr. Hristina Yaneva Hristozova is a Bulgarian citizen, born on 26.04.1970. She graduated in Medicine from Medical University - Varna in 1994. She has a specialty in Pediatrics since

2001, in Oncology since 2006 and in Pediatric Clinical Hematology and Oncology since 2009. She has a Master's degree in Health Management and Public Health since 2014. From October 1994 to November 1994, she worked as a doctor at the Central Medical Center, Dolni Chiflik branch. From January 1995 to October 2001 she was a resident doctor at the Children's Emergency Centre at the First Children's Clinic of the University Hospital "St. Nicholas". She was a pediatrician at the Children's Department of the University of Varna. From November 2001 to the present moment he has been an assistant at the Clinic of Paediatric Clinical Haematology and Oncology of the University Hospital "St. Marina". Marina" - Varna and in the Department of Pediatrics of Medical University - Varna.

He is a member of the BMA, BPA, BMSH, BMSDHO and SIOPE.

The thesis contains 140 pages, 27 tables, 19 figures and 2 appendices.

235 references are cited, of which 5 are in Cyrillic, 227 in Latin and 3 internet sources.

The studies included in the dissertation were performed in the Clinic of Pediatric Clinical Hematology and Oncology of the University Hospital "St. Marina" - Varna

The dissertation was discussed, approved and directed for public defense by the Departmental Council of the Department of Pediatrics at the Medical University "Prof. Dr. Paraskev Stoyanov"- Varna.

2. Relevance of the topic

The selected scientific topic is relevant because it is dedicated to the assessment of quality of life indicators, a mandatory element of follow-up care in survivors of childhood malignancies, and part of the long-term follow-up programmes in most European paediatric oncology centres.

Assessing the quality of life of patients followed up in paediatric haematology and oncology clinics and identifying the factors that influence it would assist medical teams to identify early complications in survivors and develop and implement appropriate person-centred health and psychosocial interventions to improve their well-being. More generally, this information would provide guidance for adapting the model of follow-up care for survivors of childhood malignancy to achieve optimal quality of life.

The increasing number of long-term survivors of childhood cancer, and the risks to their health and quality of life, make the issue of long-term follow-up particularly relevant. Disease-free survival is accompanied by a host of problems affecting the physical, mental and social well-being of individuals. In line with the principles of modern medicine for a holistic approach to the patient, quality of life assessment is a mandatory element of follow-up care for survivors.

The quality of life of these patients correlated with demographic characteristics, disease type and risk group, therapeutic activity, and late posttherapy complications. For this reason, the aim of this study was to evaluate the quality of life in patients who underwent treatment for malignant hemopathies and solid tumors in childhood, and to investigate the factors that influence it.

The presented thesis is the first attempt for such a study in Bulgaria, with practical significance in the follow-up of this group of patients, and with a contribution to the Bulgarian medical literature and practice.

3. Knowledge of the problem

In all sections of the thesis there is a knowledge of the problem, of the current advances in the assessment of quality of life and late complications that affect it in patients with survivors of childhood malignancies, as well as of the methods for conducting such a study (collection and statistical processing of the material), interpretation of results and formulation of conclusions.

4. Methodology of the study

The chosen methodology of the study allows achieving the set goal and obtaining answers to the tasks solved in the dissertation.

The statistical methods of data processing are well selected.

5. Characteristics and evaluation of the dissertation and contributions

The literature review together with the introduction is set out over 45 pages. It is detailed, well designed and based on 235 references cited. Of these, 5 are by Bulgarian authors and 227 by foreign authors. Not enough recent literature is used, which is a critical remark to the author - only 15 publications are from the last five years and 75 from the last ten, i.e. only 40% of the cited literature is recent.

This review presents the current principles of follow-up of patients who have experienced childhood malignancies and the criteria for assessing their quality of life after completion of treatment at various intervals published in the medical literature. Similar studies in other pediatric cancer centers are presented and discussed.

The structure of the review correlates with the aim and objectives.

The goal is precisely formulated. To achieve it, 4 tasks are set, a small number for this type of study. The stages of the study follow their implementation.

The design of the study is consistent with the objectives of the development.

Materials and Methods section

The study **material** includes 52 patients, a borderline number for statistical significance of the results.

The methods of the study are well chosen, including statistical methods, and are described in detail.

The **results** obtained after the statistical analysis of the data are described in great detail on 30 pages and are very well illustrated with 27 figures and 19 tables, which gives additional clarity to the description and confirms the reliability of the material. They are divided into subsections that follow the objectives of the thesis.

The **discussion** of the results is competently described, on 34 pages, analysing, in comparison with the literature data, each individual indicator. An analytical evaluation of the results compared with the literature data is included in summary form. Eight conclusions are drawn, a number adequate to those generally accepted for this type of clinical study, which are consistent with the results obtained and meet the stated aim and objectives.

Contributions of the dissertation

Overall, this dissertation adds to our knowledge of the assessment of quality of life in survivors of malignant hemopathies and solid tumors in childhood, a topic that has been studied by the scientific community for many years.

The PhD student has indicated 3 contributions of a scientific-theoretical and 3 of a scientific-applied nature. I accept all the contributions listed, which have been derived and defined without undue pretentiousness, which is commendable. They have significance for Bulgarian medical practice. I recommend the candidate to continue the research on the same topic, enriching the recommendations to all paediatric oncohaematologists, psychologists, social workers and other specialists involved in the follow-up and dispensary monitoring of patients with oncological diseases after the completion of their treatment.

The results of the research work of Dr. Hristozova are reflected in 1 publication, too small in my opinion, but meeting the requirements of MU - Varna. She also presented 2 communications delivered at scientific forums. In all of them Dr. Hristozova is the first author, proof that the dissertation work is her own.

6. The **abstract** is presented as required and reflects the main results achieved in the dissertation.

7. Remarks and recommendations

There are numerous structural, grammatical and stylistic errors in the dissertation, which in itself reduces its scientific value and creates ambiguities in reading. I recommend greater accuracy in describing such studies.

8. Conclusion

In conclusion, I believe that the presented dissertation is up-to-date, contains scientific and applied results. In terms of structure, content and volume, it meets the criteria and the regulations for the conditions and procedures for obtaining the degree of Doctor of Medicine at Medical University - Varna.

Dr. Hristina Hristozova demonstrates qualities and skills for independent scientific research. Due to the above, I give a positive evaluation of the research presented by the above reviewed dissertation and abstract, and I propose the Honorable Scientific Jury to award the degree of Doctor of Education and Science to Dr. Hristina Christozova in the Doctoral Program in Pediatrics.

22.05.2025

Prepared by the opinion:

/Doc. Dr. Boryana Emanuilova Avramova/

Заличено на основание чл. 5, §1, б. „В“ от Регламент (ЕС) 2016/679
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