### **OPINION**

on the doctoral dissertation for the acquisition of the educational and scientific degree Doctor of Philosophy (PhD) in the field of higher education 7. Health and Sports, professional field 7.1 Medicine, doctoral program "Obstetrics and Gynecology"

**Author:** Antonio Hristov Dushepeev, PhD student in independent study at the Department of Obstetrics and Gynecology, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna

Topic: Adolescent pregnancy and childbirth - current problems and solutions

Scientific supervisor: Prof. Emil Georgiev Kovachev, MD, D.Sc. Department of Obstetrics and Gynecology, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna Prepared the opinion: Assoc. Prof. Dr. Pavel Petrov Dobrev, MD, PhD, Faculty of Public Health and Healthcare, Burgas State University "Prof. Dr. Asen Zlatarov"

By order No. R-109-151/13.03.2025 of Prof. Dr. Dimitar Raykov, MD, D.Sc. - Rector of the Medical University "Prof. Dr. Paraskev Stoyanov" - Varna, I have been elected as a member of the scientific jury in the procedure for the defense of the dissertation work of Dr. Antonio Hristov Dushepeev. By Protocol 1 of the first meeting of the Scientific Jury, I have been appointed to prepare an opinion.

# 1. General characteristics of the doctoral student, the presented dissertation and materials

Dr. Antonio Hristov Dushepeev was enrolled as a doctoral student in an independent form of study at the Department of Obstetrics and Gynecology, Faculty of Medicine, Medical University "Prof. Dr. Paraskev Stoyanov" - Varna with order No. R-109-352/18.07.2023. With order No. R-109-151/13.03.2025, he was discharged with the right to defense. He works as an obstetrician-gynecologist and Head of the Maternity Department of "UMBAL Burgas" - AD.

The set of materials presented by Dr. Antonio Hristov Dushepeev is in accordance with the Regulations for the Development of Academic Staff at the Medical University - Varna. The documents are complete and precisely arranged.

The dissertation is structured in 149 pages and contains an introduction, a literature review, research methodology, results and discussion, conclusions, conclusion, declaration of originality, scientific publications of the author, a bibliography of 182 literary sources, of which 3 in Cyrillic and 179 in Latin.

### 2. Overall assessment of the dissertation research

## Relevance of the topic

The topic of the dissertation is extremely relevant both in a global and national context. Adolescent pregnancy is a serious challenge for public health and social policy, especially in countries with limited access to sexual education and contraceptive services. Despite the global trend of declining birth rates among adolescents, data indicate persistently high levels in certain vulnerable groups, both in developing and some developed countries, including Bulgaria. The topic is also particularly important in the context of sustainable development and demographic policy, as it is associated with the need for early prevention, structured antenatal care and measures to prevent repeated pregnancies in adolescence. Considering not only the health, but also the long-term social and economic consequences of adolescent pregnancy, including educational marginalization, poverty, chronic dependence on social services and risks to reproductive and mental health, makes the study particularly timely, necessary and of high practical value for health professionals, social workers and politicians involved in youth policies and maternal health.

## Knowing the problem

Dr. Antonio Hristov Dushepeev demonstrates a thorough knowledge of the issues, combining extensive theoretical training with many years of clinical experience in obstetrics and gynecology practice. This professional experience is clearly evident in the analysis of specific clinical cases, the substantiated recommendations and the realistic approach to the challenges in the monitoring and treatment of pregnant adolescents. This is the basis for a comprehensive and competent implementation of the goal of the dissertation work, as well as for a precise assessment of the problems, a justified choice of methods and a convincing analysis of the results.

### Research methodology

I find the methodology used by the doctoral student to be adequate to the object and subject of the dissertation work and suitable for drawing substantiated conclusions with high practical value. The author approaches systematically in building the research framework, by selecting appropriate clinical, demographic and statistical indicators for assessing adolescent pregnancy. The choice of contingent, the diagnostic and analytical approaches used, as well as the empirical information collected, are presented correctly and convincingly. The emphasis on the complexity of the approach – combining medical, social and behavioral perspectives – is particularly valuable. There is good scientific discipline in the application of the methods for collecting, processing and interpreting data.

## Characteristics and evaluation of the dissertation work

The dissertation is a thorough scientific study, characterized by a high degree of professionalism, methodological consistency and analytical precision. It has been developed in accordance with the requirements for acquiring the educational and scientific degree PhD in the field of "Obstetrics and Gynecology". The topic is topical, socially significant and developed in

accordance with good practices in medical science, combining an interdisciplinary approach with clinical validity and social sensitivity.

The structure of the work is logically built - from a clear introduction and specific objectives, through methodological precision and a rich empirical part, to reasoned conclusions and proposals. The content is illustrated with 71 figures and 39 tables. The author demonstrates a critical approach to literary sources, knowledge of contemporary medical and social literature on the topic, as well as the ability to synthesize knowledge from different scientific fields.

The content is comprehensive and consistent, with a clearly traceable connection between the objectives of the study, the methodology used and the results obtained. Theoretical analysis has been successfully combined with clinical experience and observations. The results of the study are presented clearly and supported by relevant data, and the conclusions are logically justified, convincing and with high practical applicability.

I believe that the research has been carried out precisely, in accordance with the tasks set, using a clear and professional scientific style.

## 3. Assessment of the doctoral student's publications and personal contribution

The results of Dr. Antonio Hristov Dushepeev's research have been summarized in two scientific papers in Bulgarian journals - one independent, one co-authored with the scientific supervisor.

## 4. Contributions and significance of the development

The contributions to the dissertation work of Dr. Antonio Hristov Dushepeev are formulated as contributions of a confirmatory and original nature and are presented in the dissertation work on pages 133, 134 and 135. I believe that they fully correspond to the goal set in the dissertation work. I can summarize them as follows:

## Confirmatory contributions:

- clearly defined relationship between social isolation, poverty, early initiation of sexual life and the high risk of adolescent pregnancy;
- confirmation of the increased risk of obstetric complications (anemia, preeclampsia, infections, premature birth, PPOM);
- evidence of lower weight and height in pregnant adolescents, as well as the importance of early inclusion in antenatal care;
- established positive correlation between gestational week and newborn weight;
- analysis of the frequency and type of surgical intervention during childbirth in this age group.

### Original contributions stand out with:

- studied and quantified low levels of abortions (spontaneous, voluntary and medically indicated);
- data on specifics in the dynamics of labor (duration of I and II stages, operative activity, breech presentation);

- creation of an algorithm for behavior in pregnant women from socially vulnerable groups, for the purpose of prevention, early intervention and protection of mental health;
- proposals for a systematic multidisciplinary approach and integrated policies in antenatal care.

These results give the work high significance both in a scientific research, clinical and health policy context.

#### 5. Abstract

The abstract is 99 pages long, well-structured and correctly reflects the structure of the dissertation, the results obtained and the conclusions drawn from the study.

### 6. Conclusion

My assessment of the dissertation, the abstract, the publications and the scientific activity of Antonio Hristov Dushepeev is entirely positive. The dissertation contains results that represent an original contribution to science and show that the doctoral student has a thorough theoretical background, opportunities for critical analysis and independent research.

The dissertation fully meets the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Regulations for its implementation, as well as the criteria of the Regulations for the Development of the Academic Staff at the Medical University - Varna.

Based on the above, I **recommend** to the scientific jury to award Dr. Antonio Hristov Dushepeev the educational and scientific degree PhD in the scientific field 7. Health and Sports, professional field 7.1 Medicine, doctoral program "Obstetrics and Gynecology".

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

02.05.2025

Prepared the opinion:

(Assoc. Prof. Dr. Pavel Petrov Dobrev, MD. DsC)