#### STATEMENT

# by Assoc. Prof. Valya Ivanova Dimitrova, Ph.D.,

Faculty of Public Health, Department of Health Care at Medical University "Prof Dr Paraskev Stoyanov" – Varna

of the defense of a dissertation for the award of the educational and scientific degree "PhD", field of higher education 7. Health care and sports, professional direction 7.4 Public health, specialty "Health care management"

## of Polina Ivanova Dragneva

# on the topic: Factors affecting the choice of pregnant women for elective delivery

with Scientific supervisors Assoc. Diana Stancheva Dimitrova, PhD

Pursuant to order No. R-109-555 of 14.12.2023 of the Rector of the University of Varna, I am designated as an internal member of the scientific jury, and on the basis of Protocol No. 1 of 22.12.2023 of the first meeting of the Faculty of Arts, I am designated to prepare opinion on the procedure for obtaining the ONS "doctor" in the field of higher education 7. Health care and sports, professional direction 7.4 Public health, scientific specialty "Health care management"

### Details of the procedure

The procedure for developing and presenting the dissertation work and training in the phd program fully complies with the regulations. By Order of the Rector of MU-Varna R-109-250 dated 01.08.2019, Polina Ivanova Dragneva was enrolled as a doctoral student in full-time study for the award of the ONS "Doctor" in the field of higher education 7. Health care and sports, professional direction 7.4 Public health, in the scientific specialty "Management of health care". Also shown with the thesis are the Protocol for the successfully passed exam for the doctoral minimum from 20.04.2021, in compliance with Order P-109-104 of 17.03.2021 of the Rector of the MU – Varna and the Protocol for the successfully passed exam in a foreign language from 26.05. 2022 on the basis of Order P-100-16 of 12.01.2022 of the Rector of the MU – Varna. In view of the report with entry No. 031-329 of 27.11.2023 of Prof. Ivan Stoyanov Aleksandrov - Director of the Sliven Branch of the Medical University - Varna regarding the readiness for public defense, proposal for a Scientific Jury and decision according to protocol No. 79 of 12.12.2023 of the Academic Council and on the basis of Art. 24, para. 6 and Art. 30, para. 3 of PPZRASRB, art. Art. 68, para. 1 of the PRAS of MU - Varna by Order of the Rector of MU-Varna No. R-109-555 dated 14.12.2023 Polina Ivanova Dragneva was dismissed with the right of defense.

The necessary documents provided for in the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations to it and the Regulations for the Development of the Academic Staff at the Medical University - Varna are presented.

# Biographical data and career development of the doctoral candidate

Polina Dragneva was born in 1993 in Sliven. Acquired a medical education in the specialty "Midwife" with OCS "bachelor" at the University of Thrace - Stara Zagora in 2015. In the period 2017 - 2019, she studied and successfully completed the master's program of the University of Thrace - Stara Zagora in Health Care Management. In the period 2016-2023, she worked as a midwife in the AGO of the Medical Center "Dr. Ivan Seliminski" JSC - the city of Sliven. From March 2023, after winning a competition, she holds the position of "assistant, higher school" in the Branch - Sliven of the Varna University of Medical Sciences, where she conducts exercises according to the curriculum of the magazine "Midwife", section "Practical foundations of general and special obstetric care ", clinical practice and pre-graduate internship. She is a member of the Bulgarian Association of Healthcare Professionals.

### General characteristics of the dissertation work

The dissertation contains 129 pages, is presented in 4 chapters and includes: introduction (1 page), literature review (35 pages), methodology and organization of the scientific study (7 pages), results and discussion (53 pages), conclusions, recommendations and contributions (4 pages). References and two appendices are also presented. The text is illustrated with 48 figures, 47 tables and 2 appendices. The bibliographic list includes 242 literary sources, of which 56 in Cyrillic, 181 in Latin and 5 Internet sources.

## Relevance of the topic

In recent years, worldwide, there has been an increase in the proportion of c-section childbirths at the expense of natural childbirth. Bulgaria is not far behind in these statistics - the share of births by c- section for 2022 is 50.9%, and 35.6% for the city of Sliven, according to data from the National Health Center, which predetermines the need for a more in-depth, scientific and analytical study of the problem. The obstetric community and WHO specialists believe that medical reasons for caesarean section are present in only 12-15% of cases, which is considered the norm. In recent years, worldwide, there has been an increase in the proportion of cesarean births at the expense of natural childbirth. Bulgaria is not far behind in these statistics - the share of births by caesarean section for 2022 is 50.9%, and 35.6% for the city of Sliven according to data from the National Health Center, which predetermines the need for a more in-depth, scientific and analytical study of the problem . The obstetric community and WHO specialists believe that medical reasons for caesarean section are present in only 12-15% of cases, which is considered the norm. The relevance and importance of the problem are related to the need to look for the reasons for the alarmingly high share of operative deliveries in our country and to optimize the midwife's role in informing pregnant women about birth methods. I attribute the discrepancy found in the spelling of the title of the dissertation, the abstract and the order of the Rector of MU-Varna to enroll the doctoral student from 2019 to a technical error.

Literature review is structured in seven parts (there is an error in the numbering of the contents) which sequentially track the main aspects relevant to the research of the doctoral student problem. It begins by clarifying basic concepts and historical aspects of surgical delivery. The following is a detailed description of the absolute and relative medical indications for operative

delivery. In the section "Risk factors and consequences related to operative delivery" an overview of risk factors related to the health of the mother and to the health and development of the child, as well as the economic consequences for society, is reviewed. In the fifth part, the epidemiology of operative births is presented, with an overview of the prevalence of operative births and data on the prevalence of caesarean section (CS) in Bulgaria, in EU countries (France, Germany, Great Britain, Spain, Greece) and North America (USA and Canada). The sixth part, titled by the PhD student, "Why do women choose to give birth with CS without medical indications?", formulated in question form, probably reflects the experience and attitude of the team regarding the need to rethink and reorganize women's preparation and awareness for childbirth and optimize the midwife's role in this process as an underutilized resource in our country. The literature review is interesting, well structured, scientifically based and is evidence of the doctoral student's skills in working with scientific literature.

## Methodology of the reseach

The methodology of the scientific research is described in detail and correctly, and the goal is to study, analyze and summarize the awareness, attitudes, psycho-emotional and social factors influencing the choice of pregnant women in Bulgaria for elective delivery. The significance of the study is related to the possible change of attitudes of pregnant women by facilitating access to reliable information. Six tasks have been set to achieve the goal. One main and four working hypotheses meaningfully related to the set goal and tasks were formulated. As the subject of the present study, the awareness of pregnant women, working midwives and students regarding the indications for elective delivery, as well as the factors influencing the decision-making process for the upcoming birth, was determined. The object of the study were three groups of respondents: healthy pregnant women (100), working midwives (50) and students studying Midwifery (51). The study was carried out in the cities of Sliven and Veliko Tarnovo, and the deadlines, medical and educational institutions were described. The deadline for conducting the research presented in the methodology is 03.05. 2022 – 28.06. 2022 for the three groups of respondents (201) is unreasonably short and was not imposed by the nature of the research problem.

The survey was conducted with a proprietary toolkit - Questionnaire cards #1, #2 and #3. For both groups of respondents (midwives and Midwifery students), the same survey card containing only 13 questions was used, which reduces the opportunities for in-depth study of the problem. The survey cards, as a self-developed toolkit of the study, should be presented in the appendix of the dissertation work.

The research design provides for the application of theoretical analysis, documentary, sociological method (survey) and statistical methods for analysis and interpretation of results (descriptive statistics, factor analysis, one-factor variance analysis, variational analysis of quantitative variables, hypothesis testing methods - non-parametric methods – method of  $\chi 2$  (Chisquare test) - analysis of hypotheses for two-dimensional frequency distributions and correlation analysis). The study was conducted after receiving permission from the Research Ethics Committee at MU-Varna - Minutes/Decision #116, meeting on 04/28/2022.

#### Results

In the third chapter, own results obtained based on the analysis of the collected information are presented. Demographic characteristics of the subjects were investigated. Factors influencing women's choice of elective surgical delivery have been studied. It is of interest to establish the fact that those who give birth for the second time are two times less likely to choose to give birth in a normal way, which the doctoral student associates with unsatisfied needs and a negative experience in connection with the previous birth. Fear of pain has been found to be a major reason for requesting an elective caesarean section, although modern medicine can offer alternatives to alleviate it. A comparative analysis of the opinion of the studied groups regarding the reasons for choosing a cesarean section was made. Awareness among pregnant women about elective delivery was investigated. The awareness and willingness of midwives and female students to provide information about caesarean section was studied. Chapter Three concludes with Approaches to reducing the operative delivery rate. I find it redundant to present the same data both in tabular and graphical form - for example: table 15 and graph. 18, tab. 16 and graph. 19, table 17 and graph. 20, tab. 25 and graph. 21, table 32 and graph. 26, tab. 33 and graph. 27, table 41 and graph. 30, table. 45 and graph. 32, table 47 and graph. 48. I disagree with the statement: "Despite the widespread network of Parenting Schools and courses for pregnant women organized (mainly by midwives), their influence is not assessed by the women surveyed as significant." I believe that such structures are not widespread and accessible to pregnant women in our country, especially since an analysis of the provision of schools for parents within the framework of the study is not legal. In this case, the low evaluation of patients is precisely due to the lack or ignorance of the possibilities of such a structure.

### Conclusions, contributions and recommendations

In the fourth chapter, 26 conclusions are presented, which are structured according to the sections of the third part. I believe that the formulated conclusions are too many and should be consolidated and become more general.

From the stated conclusions, I accept the following as significant: Fear of pain is the main reason for requesting an elective delivery (the highest levels of fear are among the youngest pregnant women with primary education, pregnant for the first time); The most feared are women giving birth for the first time, aged 18-24, with primary education; A relationship was found between the sequence of pregnancies and preferences for elective birth, which was strongest for first pregnancies and first births; A significant proportion of pregnant women, 91%, felt that they should be informed about the dangers of caesarean section by the maternity ward teams; According to midwives and students, antenatal courses are suitable for providing information to women about the risks of an upcoming operative delivery; Less than half (48.5%) of working midwives indicated that they always take the time to provide information about pregnancy, birth and the postpartum period. These are mostly workers with over 20 years of work experience.

I accept the indicated contributions of a theoretical nature and partly of a practical-applied nature. The doctoral student's work lacks a description of the proposed module for training pregnant women within courses for pregnant women, where the midwife's role in informing pregnant women can be adequately demonstrated. I believe that the Teaching Module for Pregnant Women and the Information Brochure for Women Entering the Maternity Ward presented by the doctoral student are developments based on the study and do not belong in the appendices.

The thesis comprehensively highlights the most essential moments of the dissertation work and is presented in a volume of 60 pages.

In connection with the dissertation, the doctoral student presents five full-text publications in our country, in which she is an independent author. Through the developed dissertation work, which is sufficient in volume and can be considered as an up-to-date scientific work with important theoretical and practical contributions and despite the critical remarks, Polina Ivanova Dragneva meets the requirements established by MU-Varna for awarding the educational and scientific degree "Doctor PhD".

### Personal opinion

I have known Polina Dragneva since she joined the Sliven Branch team as a conscientious, responsible and disciplined colleague. Open in character, consistent in her actions and inquisitive, she has the prospect of developing as a respected teacher and colleague. I believe that the accumulated practical and teaching experience can become a starting point for future studies when introducing innovations to improve the quality of obstetric care.

Conclusion: Based on the professional development, scientific and teaching achievements and complying with the criteria of the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations to it and the Regulations on the Development of the Academic Staff at MU "Prof. Dr. P. Stoyanov" - Varna, I give my positive vote and propose to the respected Scientific Jury that the PhD student Polina Ivanova Dragneva acquires the degree of "doctor of science" in the scientific specialty "Health Care Management".

22.01.2024 г.

Prepared the statement:

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

Assoc. Prof. Valya Dimitrova, Ph.D.