

MEDICAL UNIVERSITY OF SOFIA
FACULTY OF PUBLIC HEALTH
"PROFESSOR DR. TSEKOMIR VODENICHAROV, DMC"
Department of Healthcare

Galya Georgieva Zayakova

**HEALTHCARE FOR CHILDREN IN THE NEONATAL AND
NURSING PERIODS – TRADITIONS AND CONTEMPORARY
ORGANISATIONAL FORMS AND MODELS**

ABSTRACT

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Supervisors:

Associate Professor Pepa Rashkova Bikova-Petrova, Doctor of Medicine
Professor Delyana Petrova Hadzhidileva, Doctor of Medicine

Reviewers:

Professor Ivanka Kostova Stambolova, Doctor of Medicine
Professor Elena Grozeva Zheleva, Doctor of Medicine

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The doctoral thesis comprises 149 pages, including the contents, bibliography, and appendices. The literature review includes 140 sources in Cyrillic and Latin.

The numbering of tables and figures does not match that in the doctoral thesis.

Scientific Jury:

1. Professor Galina Stamova Chaneva, Doctor of Medicine – internal member for Medical University – Sofia, Department of Healthcare at the Faculty of Public Health at Medical University-Sofia "Professor Doctor Tsekomir Vodenicharov, Doctor of Medical Sciences"

2. Professor Ivanka Kostova Stambolova, Doctor of Medicine - internal member for Medical University – Sofia, Department of Healthcare at the Faculty of Public Health at Medical University-Sofia "Professor Doctor Tsekomir Vodenicharov, Doctor of Medical Sciences"

3. Professor Elena Grozeva Zheleva, Doctor of Medicine – external member for Medical University – Sofia, Sliven Branch at the Medical University-Varna

4. Professor Diana Krasteva Ivanova, Doctor of Medicine – external member for Medical University – Sofia, Faculty of Medicine at Sofia University "Saint Kliment Ohridski"

5. Professor Doctor Sashka Rumenova Popova, Doctor of Medicine – external member of Medical University – Sofia, retired faculty member for more than five years from the academic staff of the Faculty of Public Health at Medical University – Sofia "Professor Doctor Tsekomir Vodenicharov, Doctor of Medical Sciences"

Reserve Members:

1. Associate Professor Maria Ivanova Dimitrova, Doctor of Medicine – internal reserve member of Medical University - Sofia, Department of Healthcare at the Faculty of Public Health at Medical University-Sofia "Professor Doctor Tsekomir Vodenicharov, Doctor of Medical Sciences", who becomes a regular member in the absence of an internal titular

2. Professor Lyudmila Naydenova Chakarova, Doctor of Medicine – external member of Medical University – Sofia, retired faculty member for more than five years from the academic staff of the Faculty of Public Health at Medical University – Sofia "Professor Doctor Tsekomir Vodenicharov, Doctor of Medical Sciences", who becomes a regular member in the absence of a titular – external Medical University – Sofia jury member.

The public defence will take place on 21 May 2024 at the Faculty of Public Health, University Hospital "Tsaritsa Yoanna - ISUL" EAD, 8 "Bialo More" St., Sofia.

The defence materials are available at the secretariat of the Dean's Office of the Faculty of Public Health, Medical University Sofia, University Hospital "Tsaritsa Yoanna - ISUL" EAD, 8 "Bialo More" St., Sofia.

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ABBREVIATIONS:

OG - Obstetrics and Gynecology

BAHP – Bulgarian Association of Healthcare Professionals

EC – European Commission

EU – European Union

WHC – Women’s Health Consultation

HIA – Health Insurance Act

MHAT – Multiprofile Hospital for Active Treatment

MIA – Ministry of Internal Affairs

MH - Ministry of Health

NHS - National Health Strategy

NHIF – National Health Insurance Fund

NSI – National Statistical Institute

RECDS - Regulation for Early Childhood Development Standards

UCI – Unified childcare institution

UN – United Nations

GP – General Practitioner

POMC - Primary outpatient medical care.

RB – Republic of Bulgaria

USA – United States of America

SHATOG – Specialized hospital for active treatment in obstetrics and gynecology

PE – Postgraduate Education

WHO - World Health Organization

SOMC - Specialized outpatient medical care

USD – Ultrasonic diagnosis

UNICEF - United Nations Children's Fund

HC – The Hague Convention

CML - Central Medical Library

ACOG - American Congress of Obstetricians and Gynecologists /

BCG - Bacillus Calmette-Guerin

EFSA - European Food Safety Authority

ESPGHAN - European Society for Paediatric Gastroenterology Hepatology and Nutrition

FIGO - International Federation of Gynecology and Obstetrics

CCNM - Code of Conduct for Nurses and Midwives

SPSS - Statistical Package for Social Science

UHC - Universal healthcare

UNFPA - United Nations Population Fund

WH - World Health

WHO - World health organization

I. INTRODUCTION

Healthcare has a longstanding tradition intertwined with the history of civilization, evolving through various forms from religious dedication and craftsmanship to charity over the centuries. The recent decades have witnessed an unprecedented dynamic in the advancement of technologies, commercial-financial activities, socio-cultural, and international relations, a phenomenon commonly referred to as "globalization." This has necessitated the periodic reassessment of questions such as: "Are we keeping pace with the times?"; "Are we moving in the right direction?"; "Can we further improve?"; "Have we done enough?" across every economic sector, including healthcare, especially concerning population health care and the training of medical professionals. Healthcare is a cornerstone sector for national security, alongside education and defense.

The health of women, their reproductive behavior, and the safety of motherhood are crucial for birthing healthy and well-rounded children. Care for children from the moment of conception lays the groundwork for human health and shapes the future health behavior of each individual. These care practices represent an investment in future generations and the prosperity of society and the state.

It is clear that healthcare reform requires a new mindset and professional behavior. Most European countries have undertaken health reforms by introducing new models for delivering healthcare. The development of neonatology and pediatrics necessitates changes in health policies at both national and international levels.

Given the above and in an effort to find answers to the questions posed earlier, it is necessary to compare the traditions and contemporary understanding of healthcare for children in the neonatal and nursing periods.

Historically, for each period in the development of care for newborns and nursing infants, positive practices and unmet needs can be identified.

This motivates the choice of the current topic, aiming to compare, investigate, and promote positive practices that can be easily understood and implemented in the care of healthy nursing infants/children.

1.1. Structure of the Literature Review

The first chapter of the dissertation includes a literature review, showcasing various aspects of healthcare for children in the neonatal and nursing periods (Figure 1).

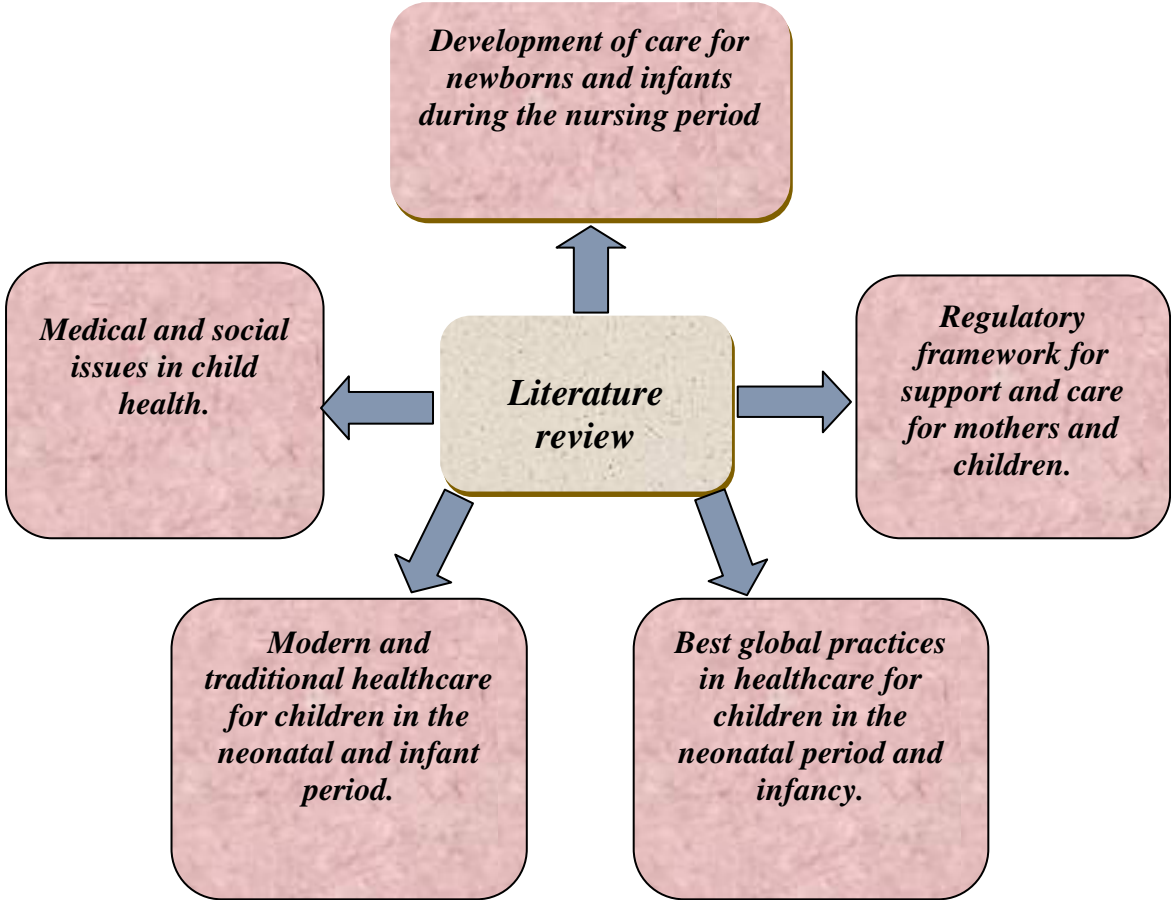


Fig.1 Structure of the Literature Review

II. METHODOLOGY AND ORGANIZATION OF THE SCIENTIFIC RESEARCH

2.1. Research Aim and Objectives

2.1.1. Aim

The primary goal is to analyze healthcare provided to children in the neonatal and nursing periods and propose an effective interdisciplinary health-promotion model. This model will incorporate modern tools and management techniques to enhance care in outpatient settings.

2.1.2. Objectives

To achieve the study's aim, the following objectives were established:

- To review and analyze fundamental theoretical approaches and concepts related to the chosen topic, as documented in scientific literature.
- To analyze and synthesize current Bulgarian and effective European practices concerning the organization and regulation of neonatal and infant care up to the age of one.
- To identify and delineate problematic areas within the current socio-health system.
- To gauge the opinions of midwives and nurses in outpatient care on the healthcare provided to children up to the age of one and their families.
- To examine parental awareness about the care, physical, and neuropsychological development of children at breastfeeding age.
- To explore mothers' trust in healthcare professionals who provide support in the care of children during the neonatal and nursing periods.
- To develop a health-promotion model for managing care for children from birth to one year of age in outpatient settings, integrating new approaches, modern methods, and tools.

2.2. Working Hypotheses

- It is hypothesized that healthcare for newborns is not at an optimal and satisfactory level and falls short when compared to many European standards, often resulting from various compromises.
- Parental lack of information regarding care and monitoring of infants through their first 12 months could negatively impact the quality of parenting preparation.
- We propose that the active involvement of healthcare professionals in consulting pregnant women and mothers will enhance the effectiveness of care for children from birth to one year of age.

2.3. Methodology and Research Design

The study's **observation subjects** include pregnant women, mothers of young children, and healthcare professionals, specifically midwives and nurses.

The focus of the study is on healthcare practices for children in the neonatal and nursing period.

Technical units for observation involve:

- Specialized obstetrics and gynecology hospitals;
- Medical centers;
- Individual medical practices; and
- Unified child care facilities.

Logical observation units include:

- Pregnant women;
- Mothers of children up to one year of age;
- Midwives and nurses.

Assistance from medical professionals, after training with survey forms, is utilized within these technical units. They were briefed on the study's objectives and methodology and engaged on a voluntary basis. To ensure accuracy, the researcher directly conducted the study with 75% of the respondents.

The study focuses on:

- The medico-social and professional characteristics of the respondents;
- The level of parental preparation and confidence in facing new life;
- Midwives' perspectives on the importance of midwifery care in child healthcare;
- The potential for enhancing the knowledge and training of healthcare professionals by integrating modern health models.

2.4. Scale, Location, and Timing of the Study

The study **included** a total of 510 individuals, categorized into:

- 180 pregnant women;
- 180 mothers (parents) of young children up to one year of age;
- 150 midwives and nurses.

Timeframe and Location:

The research spanned over two years, from June 2019 to May 2021. Selection of participants was based on voluntary and anonymous participation, ensuring cooperation with accurate data provision. Various health establishments and one child care institution were selected for conducting the study:

- Specialized Hospital for Active Treatment in Obstetrics and Gynecology "Maychin Dom" in Sofia, First Specialized Hospital for Active Treatment in Obstetrics and Gynecology "Sveta Sofia" in Sofia, Second Specialized Hospital for Active Treatment in Obstetrics and Gynecology "Sheynovo" in Sofia, Multi-profile Hospital for Active Treatment (MHAT) Blagoevgrad JSC, MHAT "Hristo Botev" in Vratsa, MHAT in Mezdra.
- Medical centers in Sofia, Sofia region, Blagoevgrad, and Vratsa.
- Individual Obstetrics and Gynecology (OB-GYN) practices in Sofia and Sofia region.
- Kindergarten "Prof. Elka Petrova" in Sofia.

2.5. Research Methods

- *Documentary Analysis*

Review of current national and international legal regulations governing maternal healthcare policy, and educational and professional activities undertaken by midwives.

- *Historical Method*: Involves examining historical documents and literary sources.

- *Sociological Methods*: Employing surveys for data collection, summarization, and analysis. The questionnaires were anonymous, covering highly applicable topics for result processing:

- A survey for pregnant women comprising 22 questions focused on the women's satisfaction with the care received during their pregnancy monitoring and prenatal preparation related to newborn care.
- A survey for mothers of children up to 1 year old, containing 22 questions, aimed at outlining their level of awareness regarding care, the physical and neuro-psychological development of children in the nursing period, and the health care services provided to their children.
- A survey for health professionals, including 16 questions, directed towards the professional training of midwives and nurses and their attitude towards effectively carrying out health-promotion and preventive care for children in the neonatal and nursing periods.
- Semi-structured interview. During the study, interviews were conducted with the surveyed respondents. Used in conjunction with the survey method, it allows for targeted enrichment of the information.

When developing the surveys, the questions were designed with consideration of literary data from similar studies, taking into account the expert assistance of professionals from the health and educational practices with significant experience.

The preparation for conducting the study was organized 2 months before its start. Work meetings were held to clarify the content of the surveys, the essence of the conducted study, and the necessity of active participation of the subjects, with special attention paid to its anonymity.

- Statistical methods:

The data entry, initial processing, and graphical representation of the results were carried out using the Microsoft Office Excel software product. The statistical processing and analysis of the data were performed with the help of the statistical package SPSS (Statistical Package for Social Sciences), version 17.0.

The following statistical methods were used for data processing:

- Frequency analysis of qualitative variables, which includes calculating absolute frequencies, relative frequencies, and cumulative relative frequencies.
- Variance analysis of quantitative characteristics. Through it, mean values, standard deviation, and standard error were calculated.
- Correlation analysis – r – to establish dependencies between individual groups;
- Comparative analysis – bidimensional distribution;
- Nonparametric analyses – Pearson's independence test for subjective categorical data from surveys – investigated χ -square coefficient for the strength of the linear relationship between two variables, Mann–Whitney and Kruskal-Wallis methods – to establish differences in independent samples;
- Parametric analyses – t-tests by Student Fisher - for comparing mean arithmetic values between exactly two groups;
- Graphical and tabular analysis – organizing the data into complex tables – pie charts, line graphs, and bar charts, and figures.

2.6. Research Procedure:

Stages of the overall research process:

- *Preliminary stage:*

Critical analysis and synthesis of scientific literature on the topic.

Preparation of research methodologies, determination of the sample, and random assignment of individual clusters.

- *Research stage – data collection:*

The first part of this stage took place from June 2019 to September 2020 in Sofia, adhering to the principle of voluntary participation.

The second part was conducted from September 2020 to March 2021 in Sofia region, and the cities of Blagoevgrad, Vratsa, and Mezdra. To mitigate social desirability bias, instructions indicated the study was for scientific purposes. The reliability of the data is considered high due to the anonymous nature of the survey and the entirely voluntary participation.

After the study, the survey forms were collected, and the data entered into a file for further statistical processing.

- *Final stage:*

Processing and analysis of all data, drawing conclusions, and making recommendations.

III. RESULTS AND DISCUSSION

3.1. Analysis of Results Regarding Socio-demographic Characteristics

Our survey among pregnant women, mothers, and healthcare professionals revealed that the public is open to expanding services led by midwives and nurses.

From a demographic standpoint, the age distribution between the two main respondent categories can be summarized and presented as follows (Figure 2): Among the 180 surveyed pregnant women, 81% belong to the age group of 20 to 40 years (44% from 20 to 30; 37% from 30 to 40) and 180 mothers, with a predominant high percentage of 76% in the same age group - 20 to 40 years (25% - from 20 to 30 and 51% - from 30 to 40).

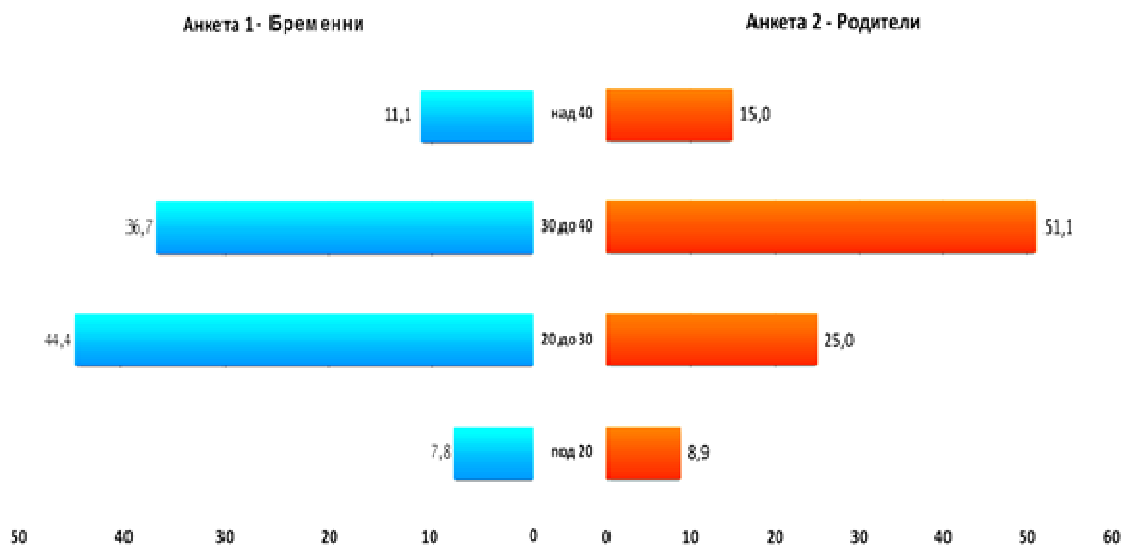


Figure 2 illustrates the age distribution of survey participants.

Nowadays there is a trend where increasing numbers of women are re-prioritizing life events, leading to delayed motherhood. This shift reflects a global pattern of women experiencing their first pregnancy at older ages. Data analysis of early versus late pregnancies and childbirths (under 20 years of age

compared to 40 years and above) demonstrates a consistent trend over recent years towards an older average age for women giving birth to their first child.

It's known that pregnancy at an advanced age or too early pregnancy can entail many risks. Conceiving and giving birth to a first child under the age of 18 or after 40 is often accompanied by complications and negative health, psychological, social, and other issues and consequences for both the mother and the child and its development. The presence of well-established prenatal structures and early pregnancy care would minimize complications.

Although there are many and likely significant reasons, pregnancy after 35 years of age, from a medical standpoint, carries greater risks of complications and a higher percentage risk of chromosomal anomalies, particularly for Down syndrome. In most cases, this anomaly occurs randomly, but it has been established that the mother's age matters – the statistical risk for a 24-year-old woman is 1 in 1400, while for a 35-year-old woman it's 1 in 350. Other risks associated with pregnancy in women over 35 include spontaneous miscarriage in the first trimester; low-lying placenta (placenta previa); gestational diabetes; preterm birth; birth of a baby with low weight; indications for delivery via cesarean section.

Somewhat, the age structure of the respondents in the study corresponds to their educational level. The educational census of the participants in both surveys is high, with 51% of the pregnant women having completed their secondary education and 37% having higher education, and among the mothers, 31% have secondary education and 58% have higher education, indicators that match the average for the European Union (Fig.3). These indicators suggest the responsible behavior of the future mothers from Survey 1 and that of the parents from Survey 2. The high educational census implies an active search and acquaintance with the best health practices. In turn, conscious motherhood and a healthy lifestyle are prerequisites for the birth of a healthy child and postnatal care without risk. The responsibility of the group with lower education –

primary (about 23% of the respondents from both survey groups) should not be underestimated.

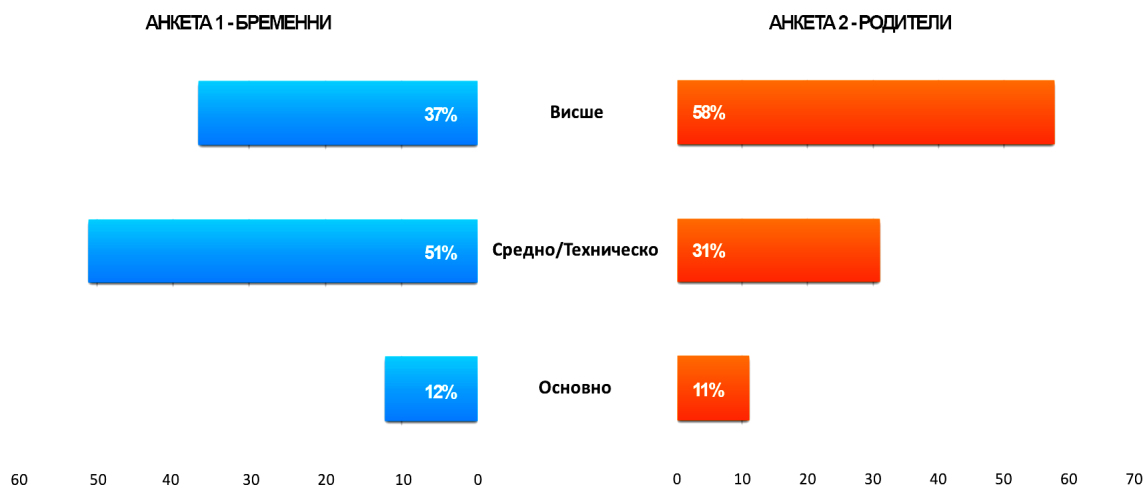


Figure 3. Educational Level of Participants in Both Surveys

This group is vulnerable due to other medico-social risk factors as well: low employment rates, low income, lack of health insurance, and consequently, a lack of visits to Women's Consultations. According to the "Inclusive Education" project by the Ministry of Education and Science in 2013, a screening study was conducted, the results of which show a correlation between children's achievements and environmental factors, with a negative effect – low socio-economic status of the family, low maternal education. In 2017, every eighth child out of ten (80.1%), whose parents have primary or no education, lives in poverty. Approximately 32 times fewer, or 2.5%, are children whose parents have higher education and live at risk of poverty. The risk of poverty among children in households with parents having secondary education is six times higher than that among children with parents who have higher education. The most significant impact on a child's educational achievements is the mother's education level - for each unit increase in her education level, 95% of children increase their test scores by an average of 8 to 11 points. Increasing income by one degree on the used scale only raises the score by 2.5 to 5 points.

Ginsberg (1994) assesses the impact of poverty on children's health and the necessity for poor children to access and use health services, explaining the deteriorated child health and high child mortality since the mid-last century due to limited access to health care and its provision.

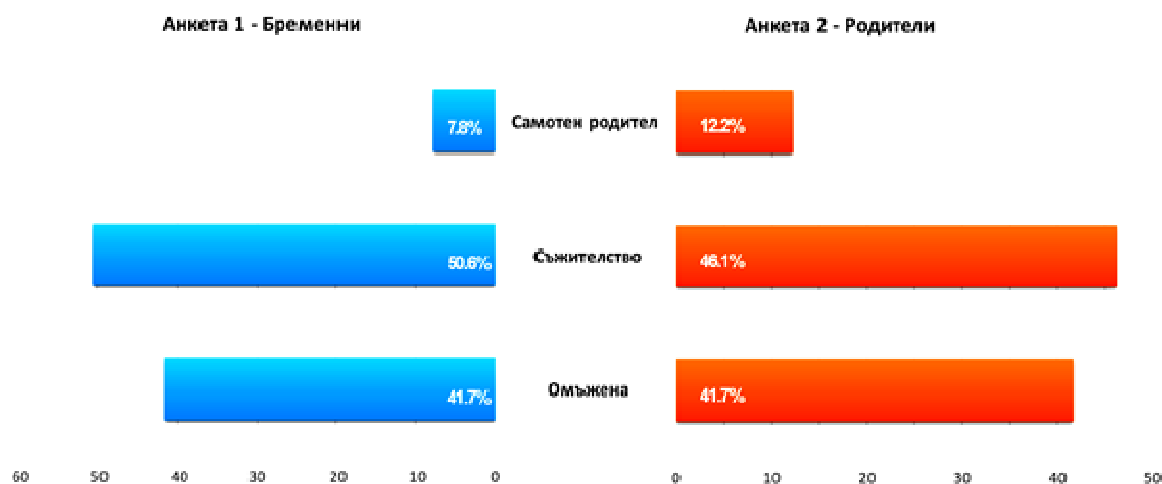


Figure 4. Marital Status of Participants in Both Surveys

Figure 4 shows the marital status of the respondents. Among the surveyed pregnant women, 50% are cohabiting without marriage, 42% are married, and only 8% are single, whereas among the mothers – 46% are cohabiting with a partner, 42% are married, and 12% are single parents.

In the past, when patronage care covered every pregnancy, it began from the family conditions and risk assessment. The importance of the indicated feature "marital status" is primarily determined by the role of the family and its support during pregnancy, as well as in the shared responsibility for newborn care. The interpersonal relationships in the family are the first the child experiences in their life and leave a lasting imprint on their behavior towards others. During the first periods of individual development, the child mainly learns through imitation, speech, behavior, communication, healthy and rational eating, physical culture, sports, etc. Therefore, the role of parental example influences the formation of adolescents' attitudes towards work and the

performance of professional tasks in the future, towards a healthy lifestyle, principles of aid and mutual help, and even builds the conception of a future own family and their role in it. The favorable relationships on which families are based include attachment, harmonious environment, care, and love.

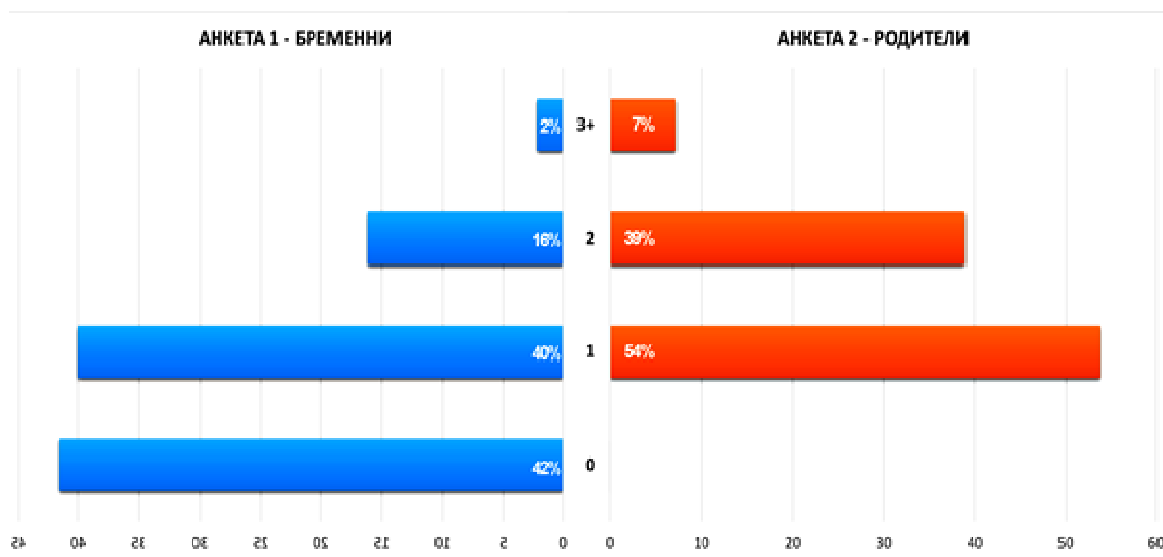


Figure 5. Number of Children of the Participants

In our study, 42% of the surveyed pregnant women are expecting their first child, 40% already have one child, and only 2% of the participants have three or more children. Among the surveyed mothers - 54% have one child, 39% - two, and 7% - three or more (Figure 5). Having previous pregnancies gives parents a certain level of confidence in caring for the nursing infant to some extent but raises questions related to personal observations and problems during the first year of the child, such as monthly norms and pathology in the child's neuro-psychological development, post-vaccination reactions, problems in breastfeeding and feeding processes.

Regarding the information about prenatal preparation, hygienic-dietary regime, and care for the future baby, the main source of information is the doctors and midwives from the women's consultation (over 70% in both surveys), and although nearly two-thirds attend specialized forums, about half of

the future mothers and close to 61% of current parents do not consider them a leading source. There is also a noticeable withdrawal regarding the internet, specialized books, and magazines, as over 60% (respectively 63% and 71% for surveys 1 and 2) indicate that they do not use them for information (Fig. 6A and B).

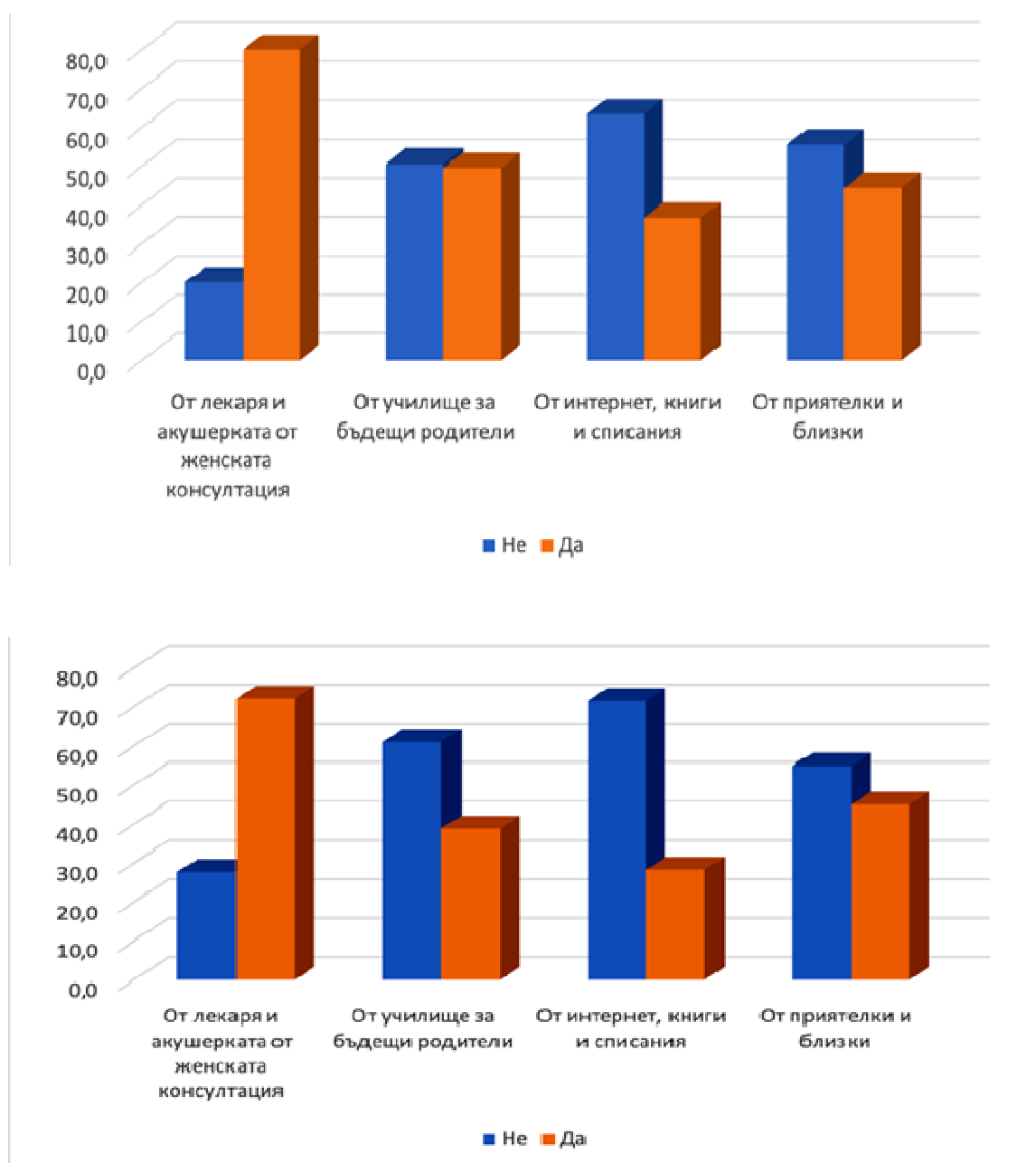


Figure 6. Sources of Information Regarding Hygienic Dietary Regime During Pregnancy - A. Pregnant Women; B. Mothers

This confirms European trends that health professionals are the main source of information, with the internet and mass media being secondary and not as trusted. Studies have shown that the internet is unlikely to replace the "human touch" and personal care that a doctor, midwife, or nurse can provide. Health professionals can offer the necessary assurance when mothers face conflicting information from other sources. A study in the Netherlands reported that women who did not use the internet as a source of information during pregnancy felt no need to do so, provided they received sufficient information from other sources. Data suggest that women who use the internet as a source of information for pregnancy and childbirth decisions rarely discuss this information with their healthcare providers.

However, it's important to note the active search for information by pregnant women in the prenatal, postnatal periods, and for newborn care. Strictly regulated visits to women's consultations limit their access to midwifery care. The current regulations on maternal and child health create uncertainty in women regarding childbirth and child rearing. Pregnant women seek information to feel more confident and at ease in their communication with health professionals, to make informed decisions during the antenatal period, and to prepare for their future responsibilities.

Adequate information helps reduce stress and anxiety, provides support, and boosts self-esteem and a sense of control over the situation. Inadequate information—limited, conflicting, or incorrect—is associated with loss of control and limited involvement in decision-making, increasing the risk of developing anxiety. Therefore, it's crucial for pregnant women to have access to information that meets their needs, delivered in the right amount and at the right time.

3.2. Analysis of Pregnant Women's Opinions on Their Awareness of Newborn Care in the Neonatal Period

Nearly all major concerns of pregnant women in the prenatal and postnatal periods relate to health and parental care for children. They actively seek information on topics such as: First-time newborn care; Massage and gymnastics; Breastfeeding and feeding; Motor activity and stimulation of early childhood development.

A summary table expression of these topics is presented in Table 1.

Table 1. Results from Survey 1 among Pregnant Women Regarding Their Awareness of the Birthing and Postpartum Period

Do you have sufficient information regarding massages and gymnastics for children from 0 to 1 year old?		
	Number of responses	Percentage
No	39	21,7%
Partially	125	69,4%
Yes, absolutely	16	8,9%
Do you have sufficient information regarding the changes and norms of motor activity for children from 0 to 1 year old?		
	Number of responses	Percentage
No	29	16,1%
Partially	138	76,7%
Yes, absolutely	13	7,2%
Do you have sufficient information about breastfeeding and weaning your child?		
	Number of responses	Percentage
No	44	24,4%
Partially	98	54,4%
Yes, absolutely	38	21,1%
Do you need any additional information regarding the care of your child?		
	Number of responses	Percentage
Yes	34	18,9%
More likely, yes.	128	71,1%
More likely, no.	11	6,1%
No	7	3,9%

Are you familiar with your right to two visits /up to 42 days after birth/ at the women's consultation you attended during pregnancy, for monitoring your postpartum period?		
	Number of responses	Percentage
Yes, I was informed in the women's consultation	44	24,4%
Yes, I understood accidentally	37	20,6%
No	99	55%
Do you think the women's consultation has fulfilled one of its main tasks - to inform and prepare you for the postnatal period		
	Number of responses	Percentage
Absolutely yes	17	9,4%
Somewhat	126	70%
Absolutely no	6	3,3%
I cannot say	31	17,2%

Despite the abundance of sources, only 9% of surveyed individuals are fully confident that they possess the necessary knowledge for massaging and performing gymnastics for children aged 0 to 1 year. This indicates that over 90% of the surveyed first-time parents feel a need for additional information on the subject, with 22% having no knowledge of the procedure's methods or its role in the development of the fragile infant organism (Figure 7).

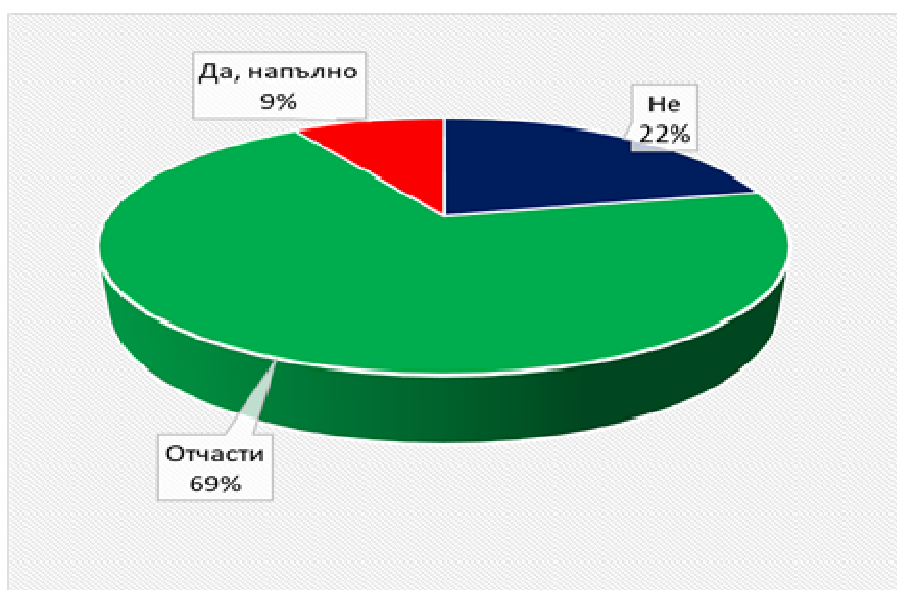


Figure 7. Knowledge about Massages and Gymnastics for Children from 0 to 1 Year Old

Considering that massage is extremely important for the newborn because it stimulates reflex movements, improves circulation, and helps muscles relax - as in the first two months after birth, the baby has a more pronounced muscle tone, learning, and conducting massages are mandatory.

Stimulation through skin caressing of the nerve impulses reaching the brain's cortex has a toning effect on the central nervous system, called passive exercises, and is conducted up to the second month after birth. From the third month until the first birthday, in addition to massage, active gymnastics is also performed. The massage develops the child's motor activity and prepares its body for crawling and walking.

Similarly, the percentage expression of the question about knowledge of the monthly change and the norm of motor activity in the first year is shown. Only 7% of the respondents answer affirmatively, and 93% share that they have vague knowledge or none at all (fig.8).

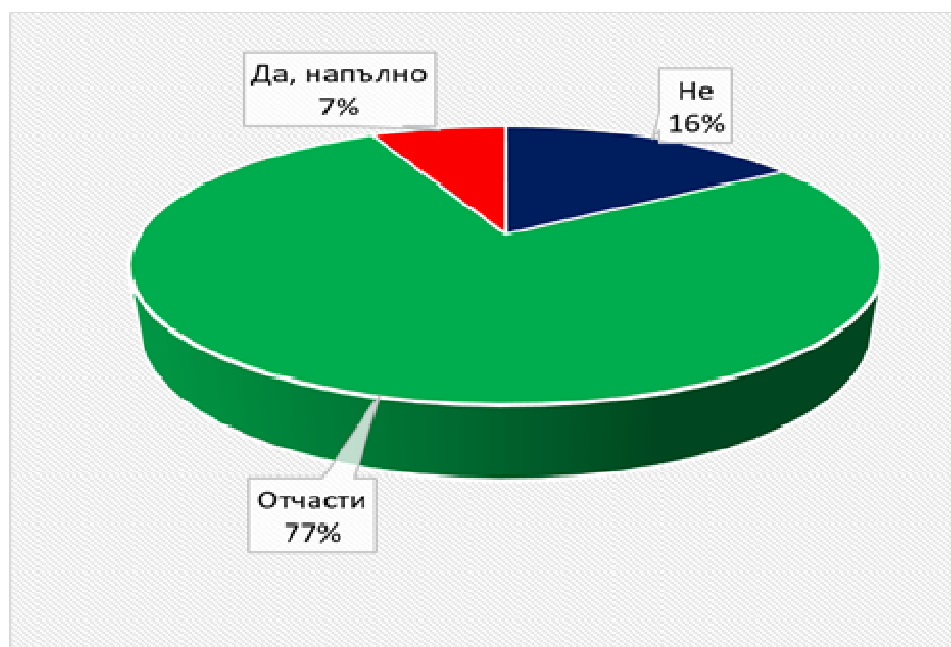


Figure 8. Knowledge about the Change and Norm of Motor Activity by the End of the First Year

It is important to know the basic norms of motor activity in the nursing baby during the first 12 months of life because this could guide parents for timely intervention in case of deviations and consultation with a specialist. Educating parents in performing muscle tone-provoking massages, and later gymnastics, is a priority in prenatal preparation by medical professionals and a commitment of patronage care.

The newborn spends its first month mainly in sleep. Movements are still absolutely uncoordinated and chaotic. Awakenings usually occur because it's time for feeding or the baby has become very hungry. The physiological hypertonus of the muscles normally keeps the legs bent at the knees, and the hands in a fist, but it fades over time, and movements begin to develop and coordinate. The baby can only lie down, cannot hold its head up, nor crawl. Towards the end of the third month movements become more purposeful, and the baby can start to turn onto its stomach. As the months progress, motor activity becomes more pronounced, purposeful, and confident.

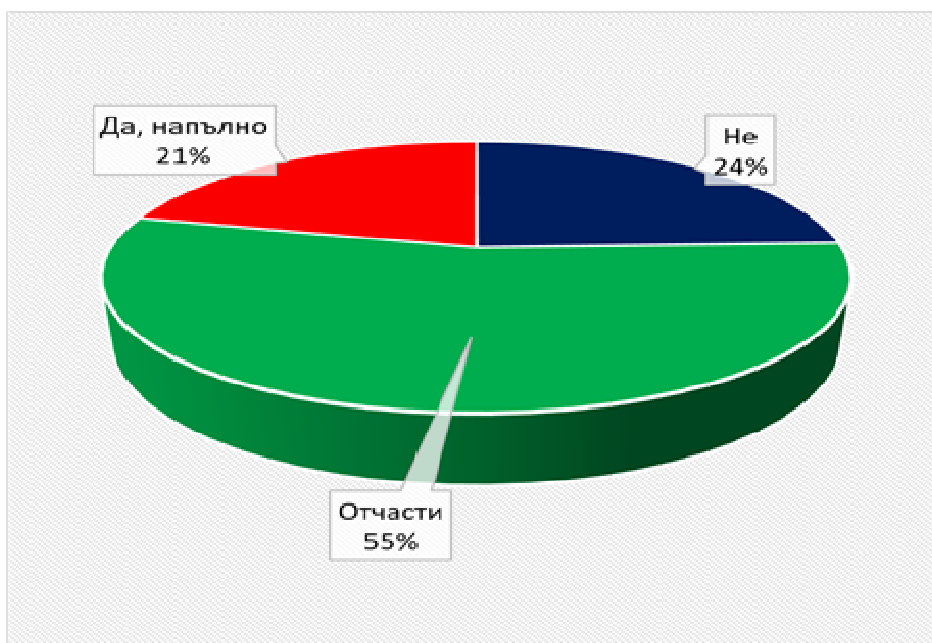


Figure 9. Sufficient Information about Breastfeeding and Feeding the Child

The results regarding pregnant women's awareness of breastfeeding and feeding the child are presented in fig.9. The smallest percentage, only 21% of respondents believe they are prepared for the challenges of feeding during the first year. More than half - 55% of all surveyed respond "partially," and the decidedly insecure and lacking knowledge make up a quarter of the respondents. These results indicate the need for qualified midwives and nurses to provide information and support families in preparation for breastfeeding.

Proper feeding of the nursing infant is extremely important for its normal physical and neuro-psychological development. Preparation for breastfeeding the newborn should start from the beginning of pregnancy. The most suitable, complete, and easily digestible food for the newborn is mother's milk. It satisfies all nutritional needs, ensures optimal development of the immature and fast-growing infant organism, and resistance to infections. Knowing the positive effects of breastfeeding is a leading factor for the mother's motivation. However, breastfeeding comes with a range of problems, from the mother's side as well as the newborn's side. It is precisely when these problems arise that the family should receive qualified help from trained and qualified specialists.

Feeding children is primarily the responsibility of their parents. However, health professionals have the responsibility to advise parents on age-appropriate healthy eating based on contemporary established achievements in science and practice.

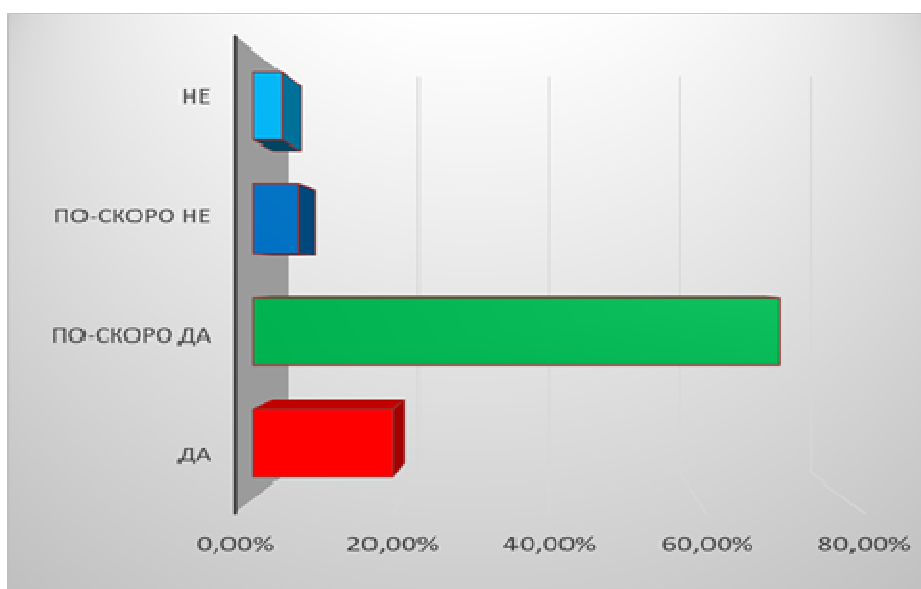


Figure 10. Need for Additional Information Regarding the Care for Your Child

It's crucial for midwives and nurses to understand what information sources women use for decision-making and preparation and to be ready to recommend websites and materials that are reliable and trustworthy. By initiating conversations about the reliability of information sources, health professionals can prevent inaccurate decisions based on misinformation while simultaneously strengthening trust with their patients.

The majority of the surveyed pregnant women openly share the need for additional information regarding the care of the newborn child (definite “yes” – 17% and rather “yes” – 76%). A small portion of the surveyed group—about 10%, likely based on personal experience, believe they possess the necessary basic knowledge in the care of the nursing infant (fig.10).

The future mothers themselves have uncertainties regarding their rights, such as the right to two postnatal visits up to the 42nd day after childbirth at the women's consultation clinic they attended during pregnancy, to follow up on the postpartum period. More than half - 55% of respondents answer that they are not familiar with this right, and 21% state that they found out about it by chance. Targeted information from the women's consultation clinic was received by 24% (fig.11).

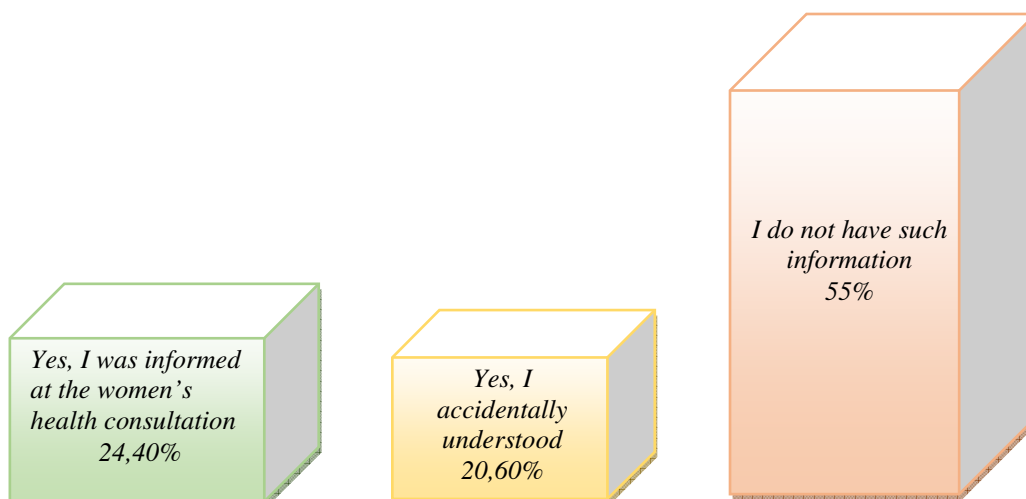


Figure 11. Information on the Right to Two Visits /up to 42 days after childbirth/ at the Women's Consultation Clinic for Patronage Care

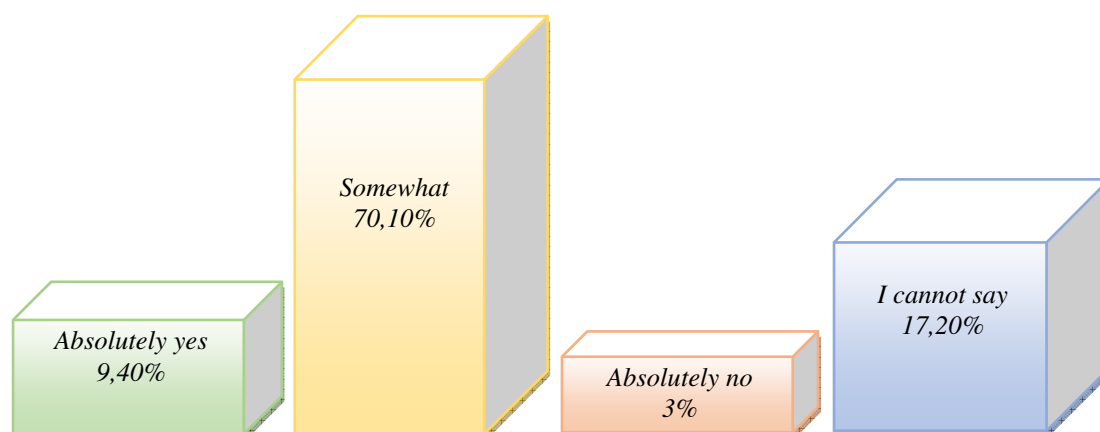


Figure 12. Information from the Women's Consultation Clinic Regarding Your Preparation for the Postpartum Period

Women's satisfaction with the information received regarding preparation for the postpartum period is relative. Two-thirds of the women desire the possibility for more frequent meetings with specialists and over 50% - the opportunity for more information. However, the attitude towards the women's consultation clinic is rather positive - 10% are definitive that it helped in the preparation for the postpartum period, 70% believe it helped to some extent, and

only 3% strongly disagree (fig.12). The women's consultation clinic itself is limited by various reasons in performing all its follow-up and educational functions related to pregnancy, childbirth, and the postpartum period.

3.3 Analysis of Study Results Regarding Mothers' Awareness of Childcare

Table 2 summarizes the survey results from mothers/parents of infants, focusing on key developmental topics for newborns and infants throughout their first year.

Table 2. Results from Survey 2 on Mothers' Awareness Regarding the Care of Their Child

Do you need additional information regarding the care of your child?		
	Number of responses	Percentage
Yes	79	43,9%
Partially	80	44,4%
No	21	11,7%
Do you have sufficient knowledge regarding massages and gymnastics for children from 0 to 1 year old?		
	Number of responses	Percentage
No	53	29,4%
Partially	92	51,1%
Yes, absolutely	35	19,4%
Do you have enough information regarding the norms and support for the motor activity of the child from 0 to 1 year old?		
	Number of responses	Percentage
No	43	23,9%
Partially	101	56,1%
Yes, absolutely	36	20%
Do you have enough information about breastfeeding and weaning the child?		
	Number of responses	Percentage
No	28	15,6%
Partially	81	45%
Yes, absolutely	71	39,4%

Do you know the indicators for the neuro-psychological development of a child from 0 to 1 year of age and how they change during the first 12 months?		
	Number of responses	Percentage
No	24	13,3%
Partially	125	69,4%
Yes, absolutely	31	17,2%

In response to whether additional information regarding newborn care is needed, only 13% of surveyed mothers believe they have the necessary knowledge to confidently face the challenges of the neonatal and nursing period. This might be attributed to nearly 45% of respondents having two or more children, suggesting that personal experience from previous pregnancies contributes to their current newborn care knowledge. However, the majority remain uncertain, with 70% partially agreeing and 17% acknowledging a definite need for more information (Figure 13). This underscores the essential role of nurses and midwives in postnatal and patronage healthcare services.



Figure 13. Need for Additional Information on Newborn Care

The United Kingdom serves as a noteworthy example where community health nursing, often referred to as health visiting, is integral to the national

healthcare system, ensuring accessibility for every British family. This universally available service, funded by the government, guarantees that all families in need—irrespective of their socio-economic status, place of residence, or whether they are raising their biological or adopted children—have the right to benefit from the support of a community health nurse. These professionals conduct assessments to identify the current and individual needs and requirements for health services and support. The cornerstone of a community health nurse's role is making home visits to address the health needs within families and the broader community, aiming to provide tailored care and support where it's most needed.



Figure 14: Knowledge Regarding Massages and Gymnastics for Children Aged 0 to 1 Year

From Figure 14, it is evident that a significant portion of mothers (30%) are unfamiliar with the topic of massages and gymnastics for children up to 1 year old, lacking information on it. Fifty-one percent of respondents showed uncertainty, while only 19% affirmatively knew about it.

Only a few maternity hospitals employ a rehabilitation specialist or kinesiologist who, during the postnatal period, provides mothers with essential training on motor activities for the newborn. The feedback from new mothers and those with young children suggests that the information received

during prenatal consultations on these matters is scarce and insufficient, echoing the sentiments of healthcare professionals. Midwives and nurses report that many mothers they interact with require regular consultations, especially at the beginning of the postnatal and nursing periods, and often seek voluntary guidance during the first year of their child's development.

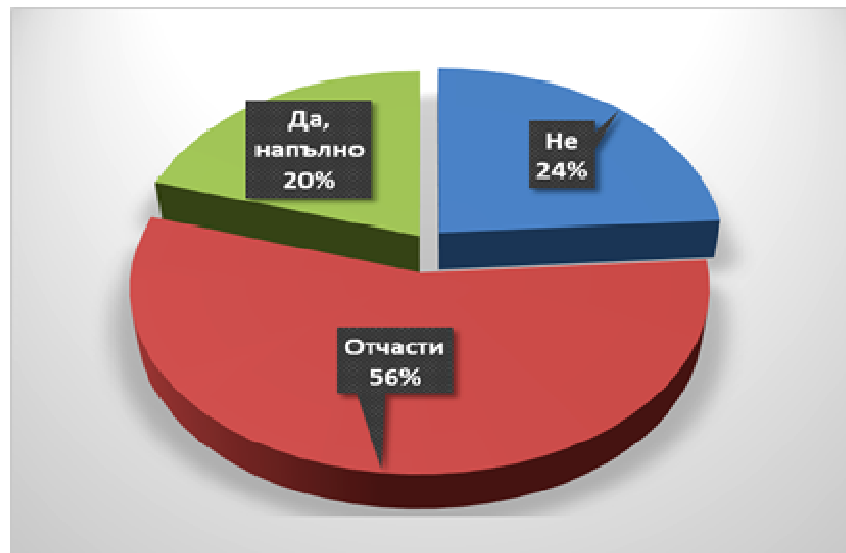


Figure 15: Adequacy of Information on Breastfeeding and Weaning

The results regarding parents' awareness about breastfeeding and weaning, as shown in Figure 15, highlight the need for qualified midwives and nurses to guide and support the breastfeeding process and the weaning period. Only 20% of mothers claim they feel prepared to tackle the challenges of feeding an infant. Alarming, the remaining 80% of respondents feel either unsure (56%) or completely lack knowledge (24%) on the subject.

It is crucial for parents to be educated about the principles of breastfeeding and weaning, including the benefits of breastfeeding and the stages of weaning, to reduce stress during this period and maximize benefits for both the child and the mother. Children in their first year grow and develop rapidly, increasing their height by 25-30% and tripling their birth weight by the end of the year. The development and maturation of all bodily organs and

systems, especially the brain, immune, and digestive systems, are accelerated. Adequate and healthy nutrition is a key factor in addressing the health issues of infants and young children and maximizing their genetic potential.

Some mothers rely on unverified sources for information on breastfeeding and weaning. Utilizing unspecialized literature and unprofessional advice based on personal experience poses a risk of reducing the chances of successful and comprehensive breastfeeding. For several years now, midwives and nurses in Bulgaria have had the opportunity to specialize as "breastfeeding consultants," undergoing training based on an established European program.



Figure 16: Knowledge of Neuro-Psychological Development Indicators for Children Aged 0 to 1 Year and Their Changes During the First 12 Months

Even more striking are the findings on mothers' knowledge of neuro-psychological development indicators for children up to 1 year old. Only 17% claim to know the methodology for monthly assessment of the newborn child. Again, likely based on personal conviction from personal experience, the majority of respondents - 70%, admit they are somewhat familiar, while 13% of mothers lack any information on what changes to observe for deviations in the neuro-psychological state of their child, answering "no" (Figure 16).

The care for a child begins immediately after birth, and parental responsibility includes covering their nutritional and hygienic needs and ensuring their normal physical and neuro-psychological development. A baby develops intensely and changes daily. Although development follows a general pattern, the pace varies, and the acquisition of skills can differ in timing among children. Knowing these patterns would easily help parents identify deviations and seek timely rehabilitation for any issues.

3.4 Analysis of Nurses and Midwives' Attitudes Towards Neonatal and Infant Healthcare

The consensus among nurses and midwives on prenatal consultation information regarding infant care during the nursing period is clear. 92% believe it is definitively insufficient, while about 8%, based on personal observations, think parents, especially mothers, have relatively satisfactory knowledge (Figure 17).

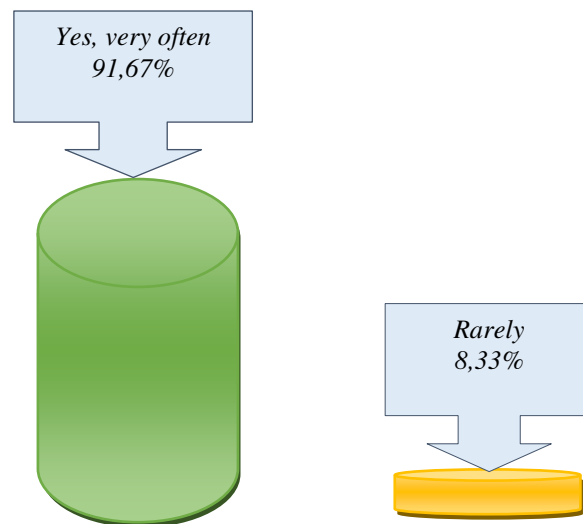


Fig. 17. Professional Opinion on Issues Related to Pregnancy, Childbirth, or Newborn Care

This deficiency is shaped by the stringent visitation policies that fail to meet pregnant women's unique needs, thereby limiting their access to comprehensive midwifery care. Concurrently, an increase in administrative duties diminishes the time available for medical professionals to engage in consultative activities, adversely affecting pregnant women and, to a lesser extent, newborns. The midwife plays a crucial role in preparing the expectant mother for the forthcoming introduction to her newborn, guiding her through the necessary care procedures. Insufficient preparation for childbirth and postnatal care leads to heightened anxieties regarding the pregnancy and the infant's well-being. According to D. Hadzhidieva, pregnant women and mothers trust the information provided by midwives, preferring their communication due to the perceived closeness and support. Prenatal consultations serve as a critical health and educational center, addressing the nuances of motherhood.

Nonetheless, midwives and nurses note the substantial need among mothers for frequent consultations, especially in the early stages of the postnatal and nursing periods. A staggering 78% report that they are approached weekly during the first month and monthly throughout the first year for guidance, underscoring the demand for ongoing support. Popular health promotion activities concerning motherhood include lectures, both individual and group discussions, parenting courses, visual aids such as posters and brochures, and practical demonstrations using models. Individual discussions, as highlighted by G. Stoimenov, stand out as a particularly effective engagement method when conducted with persistence and authoritative knowledge by healthcare providers.

The concept of a preparatory school for prospective parents, initiated in the 1990s, employs a comprehensive approach, often led by midwives and/or obstetricians-gynecologists. It encompasses lectures and practical sessions aimed at equipping future parents with essential skills. The enduring work of midwives and nurses within pediatric and women's health consultations has historically played a pivotal role in promoting child and women's health.

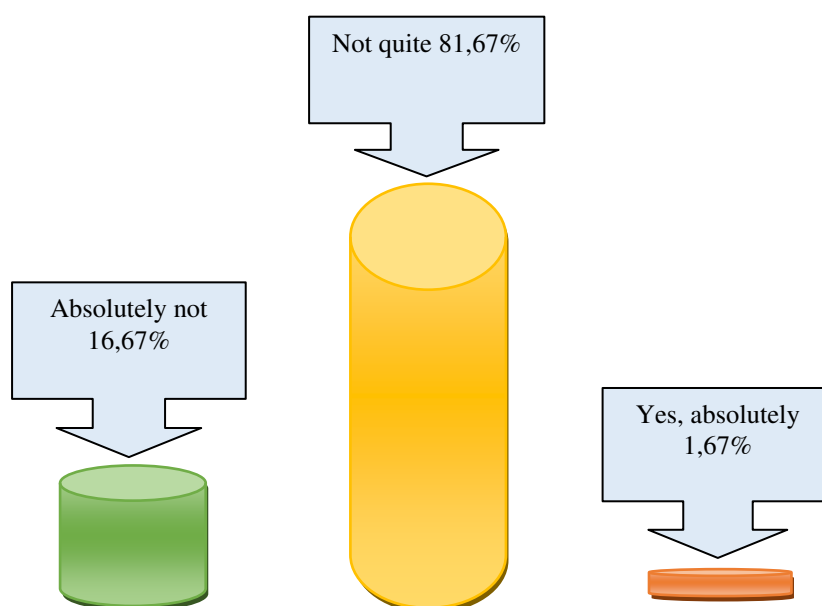


Fig. 18. Adequacy of Information Regarding Pregnancy, Childbirth, and Postnatal Period Received by Pregnant Women at the Women's Health Consultation

The midwives and nurses themselves are not convinced of the extent to which the women's health consultation provides all the necessary information regarding pregnancy, childbirth, and the postnatal period. In fact, only 16.67% are convinced that this happens, 81.67% believe that there could be an improvement in awareness, and 16.67% are categorical that it is not sufficient (Fig. 18). It's important to note that some of these professionals began their careers over 25 years ago, giving them a unique perspective on how patronage care models from the past compare to today's practices. Their insights offer a valuable comparison between historical and contemporary approaches to care.

Healthcare professionals' observations on the current medical model and regulations governing maternal and child health point to a considerable shortfall in both areas.

According to the European framework "Health 2020," improving health and ensuring equal access begin from pregnancy and early childhood. The importance of midwives, who, along with nurses, constitute the largest group of healthcare professionals, is emphasized. Their place and role in addressing the

challenges of child health, ensuring continuity of care, and respecting patients' rights amidst changing needs are highlighted.

The WHO's strategic direction for nurses and midwives underlines the active role of midwives and nurses in ensuring that health policies, plans, and decisions related to their professions are specifically tailored to the needs of individual countries and align with principles of effective management and regulated practice.

Rational use of the qualifications of nurses and midwives can lead to significant financial savings in maternal and child health. Tasks that can be performed by healthcare specialists should not unjustifiably be done by higher-paid doctors.

Currently, the healthcare sector uses a vast amount of medical documentation approved by the Ministry of Health, the completion of which takes up a significant portion of the working time of those providing medical and health assistance.

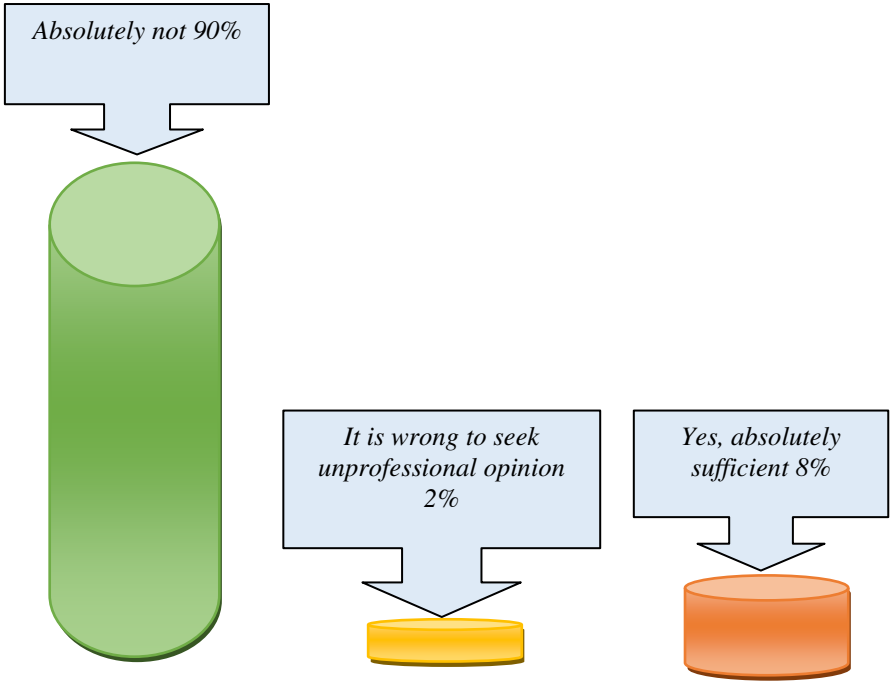


Fig. 19. Adequacy of Training Pregnant Women Receive from Prenatal Consultations Regarding Child Care During the Nursing period

Regarding the question, "Do you believe the training that pregnant women receive about newborn care during the nursing period from prenatal consultations is sufficient?" 90% of respondents in Survey 3 categorically responded no. Merely 8% of midwives and nurses believe the prenatal preparation fully meets the needs, while a scant 2% concede that seeking non-professional advice is misguided (Fig. 19). These findings point towards a real professional challenge in crafting the preparatory framework for future parents concerning newborn care.

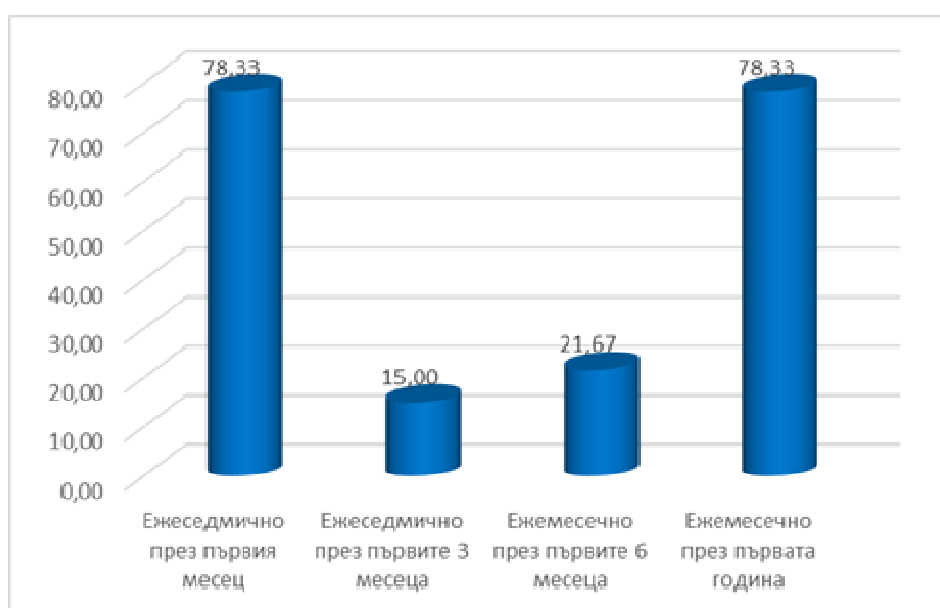


Fig. 20. Opinion on the Frequency of Consultations Sought by Parents During the Postnatal and Nursing period

Figure 20 reflects the responses of healthcare professionals to the question, "In your opinion, until what month after the child's birth does the mother need you the most as a healthcare professional during the postnatal and nursing period?". Drawing from their experience, midwives and nurses identify two critical periods of heightened consultation needs. Unsurprisingly, the initial weeks post-birth are marked by the most significant demand for weekly consultations – through visits or other professional methods—accounting for 78%—attributable to the myriad of uncertainties surrounding newborn care.

Advice on health care for the infant and parenting "lessons" significantly contribute to a positive start in a child's development, family psychodynamics, and serene motherhood. According to medical professionals (78%), these consultations should ideally be monthly, extending throughout the first year. Professional experience in infant monitoring allows for early detection of deviations and timely intervention, thus underscoring their irreplaceable value.



Fig. 21. Self-Assessment of the Ability to Start an Independent Practice

When asked about their ability and self-assessment of their skills to start independent practices, most midwives and nurses express some hesitations. Only 22% are confident in their competence, 60% acknowledge the need for further training, and 18% categorically deny such capability (fig. 21).

In an era of rapidly evolving technologies and medical knowledge, the foundational training received by healthcare professionals, especially in pediatric healthcare, requires constant updating and expansion to incorporate new technologies, diversify services, and enhance the quality of child health care regarding prevention, diagnosis, and treatment. This necessitates providing trained medical and other staff for the use of these technologies.

According to the 2021 report by the Association of Healthcare Professionals (AHP), nurses, midwives, and other health care professionals are dwindling in numbers and have a high average age, which explains their concerns. There is an unfavorable age structure with an increasing average age of medical professionals, uneven territorial coverage with a concentration of higher staffing and infrastructure potential in several areas of the country, and a growing deficit in remote and hard-to-reach areas and small settlements.

This, combined with the significant average age of the workforce, resonates with the concerns of the Directorate-General for Health and Food Safety of the European Commission regarding the shortage of nurses and public health specialists not only in Bulgaria but also within the EU. These issues may worsen as the population continues to age and a relatively high proportion of healthcare workers are approaching retirement.



Fig. 22. Self-assessment of basic training (theoretical and practical) for providing quality health care

About two-thirds of the surveyed participants have some doubts about their basic training, and 12% firmly believe it is insufficient for providing quality healthcare (fig.22). Traditional medical education is based on a narrowly medical approach and does not provide sufficient competencies matching the specific requirements for working with children and families (psychological

approaches, specifics of communication with children and parents, working in a multidisciplinary team, etc.).

Until the late 1990s, there were different profiles of nurses: pediatric, dietician nurses, dental nurses, etc. Its elimination disrupted the health system's functioning. The need for health care professionals, including the regulated professions "nurse" and "midwife," is determined on a market basis, which also becomes the leading factor in the demand for these professions.

The shortage of medical personnel is a problem with global dimensions, leading to a deterioration in the quality of health services offered to the population, restricting access to healthcare, and worsening basic health indicators. The observed trends in the provision of medical and other professionals in the child healthcare system over the last decades in our country are highly alarming. The crisis of the shortage of medical professionals has been exacerbated since the adoption of Directive 2005/36/EC on the recognition of professional qualifications, which significantly facilitates the mobility of professionals, allowing them to freely choose a country to practice within the Union while also forming social capital.

The admission and training of students in the "Nurse" and "Midwife" specialties are carried out in higher education institutions and last 4 years with a minimum of 4600 hours of training (according to the requirements of the European Directive 2005/36/EC). The training ends with four major state exams and a bachelor's degree, but the autonomy and compensation for the work afterward are absolutely inadequate to the competencies and responsibilities that nurses and midwives have.

Fifteen years ago, there were 15 medical colleges in our country where these specialists were trained; now there are only 8 (two of which are branches), and yet, over the past 5 years, some of them had difficulty finding candidates and were left with unfilled student places. The number of students admitted to these specialties is about 400 per academic year in the country and depends on

the territorial possibilities and the accreditation ratings of the higher education institutions. This admission cannot even compensate for the number of specialists leaving the system due to retirement, leading to the appointment of healthcare professionals of retirement age in medical institutions.

The 2021 report by the Bulgarian Association of Healthcare Professionals (BAHP) highlights a looming scarcity of nurses, midwives, and other healthcare professionals, compounded by an aging workforce, which underscores their apprehensions. An unfavorable age structure, with an increasing median age among medical professionals and a geographic concentration of resources in a few regions, exacerbates the shortage in remote and less accessible areas.

This scenario, coupled with the significant median age of the workforce, resonates with the European Commission's Directorate-General for Health and Food Safety's concerns regarding the shortage of nurses and public health specialists not only in Bulgaria but across the EU. This issue is poised to deteriorate as the population continues to age, and a significant portion of healthcare workers approach retirement.

The professional advancement of medical and other professionals in the realm of child healthcare is not particularly appealing at the moment due to several reasons, among them a lack of targeted incentives, including financial ones.

Given this context, 92% of the healthcare workers surveyed express a desire to enhance their qualifications through further education courses, postgraduate training, specializations, and other forms of continuing education. However, a portion of them share that they do not have the financial means to do so – 12% (Fig.23).

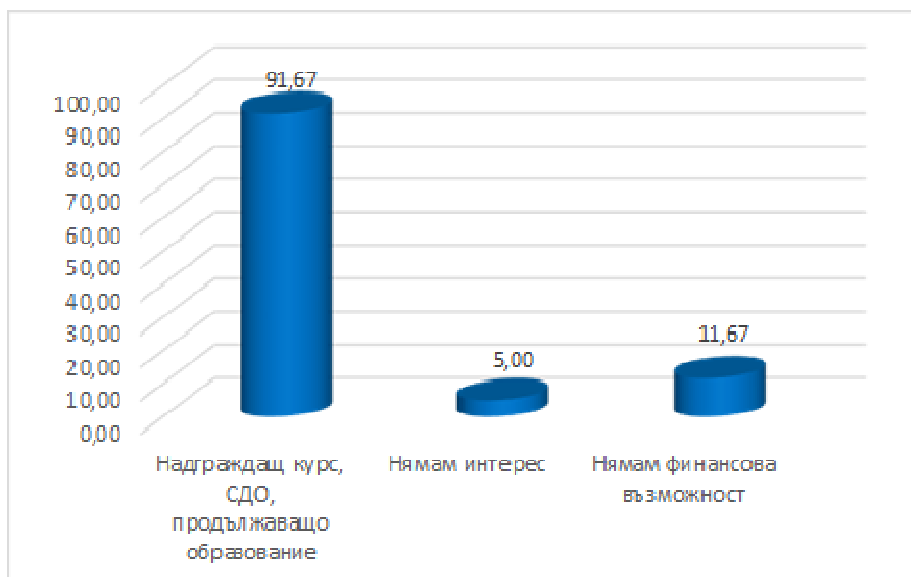


Fig. 23. Desire of Healthcare Professionals - Midwives and Nurses to Improve Their Qualifications

Continuing education and professional development are left to the discretion and initiative of the healthcare professionals themselves, with funding for such initiatives also falling on those who seek to further their education, including the time commitment required. The field of child healthcare faces numerous challenges amidst the constantly evolving healthcare system conditions, including the need for knowledge updates. Currently, there are no favorable conditions provided for specialization and continuous medical education for those working within the pediatric healthcare system.

Healthcare facility management does not acknowledge or compensate healthcare specialists with higher qualifications or those who have undergone additional continuing education. This situation is demotivating and contributes to the deteriorating quality of healthcare services.

Regarding neonatal and nursing period healthcare, the aim of every advanced training program is to enable nurses and midwives to continuously update and refresh their knowledge and skills, improve evidence-based practice, and ultimately ensure they are equipped to meet the needs of young patients and their parents, delivering services in an ever-changing practical environment.

Continuing education for healthcare professionals is crucial amidst the rapid advancement of medical technology and practices. New knowledge and skills are required for performing highly specialized care and procedures. According to the Bulgarian Association of Healthcare Professionals (BAHP), continuing education should be a mandatory, not optional, element within the healthcare system.

The postgraduate qualification system is clearly outlined in the Law on the Professional Organization of Nurses, Midwives, and Associate Medical Specialists., but to date, no regulation for its implementation has been adopted. Postgraduate education includes formal educational activities (e.g., practice-related training, seminars, lectures, courses, conferences, workshops) and informal learning related to the role and scope of practice (e.g., reflecting on practice, journal reading, clinical training, meetings, online resources, self-study).

Participation in Postgraduate education offers clear benefits for individual nurses, midwives, and other healthcare professionals. However, limiting access to such activities negatively impacts job satisfaction. This practice should go beyond mere accumulation of knowledge, focusing instead on addressing everyday problems in specific clinical settings to create tangible benefits for both patients and the organization. Yet, there's no consensus on the most appropriate methods for assessing and analyzing the quality of undertaken Postgraduate education, its costs, and its profitability, placing staff in a difficult position of balancing their commitment to patient care and safety with professional responsibility and a lifelong learning desire.

In some countries, Postgraduate education is mandated by professional regulators, thus necessary for maintaining practice as a nurse and keeping registration (e.g., the United Kingdom, Spain, Australia, and some U.S. states). In others, Postgraduate education is voluntary and not mandatory (e.g., Sweden, Ireland, and Bulgaria).

In the UK, for example, the requirement to engage in Postgraduate education throughout one's professional life is embedded in the Code for Nurses and Midwives ("6.2 Maintain the knowledge and skills you need for safe and effective practice") and is necessary for continued practice, known as revalidation. For nurses and midwives to meet these requirements and fully realize the benefits of ongoing education in their practice, they need organizational support in terms of funding, time off to attend, and access to suitable opportunities. While financial support from employers is key, funding is not always the issue. Time for attendance and participation remains hindered by workforce shortages and staff workloads.

Participation in Postgraduate education is essential for the professional development of nurses and midwives, necessary for delivering high-quality, safe, effective, and person-centered care. Postgraduate education is defined as "Systematic maintenance, improvement, and continuous acquisition and/or enhancement of knowledge, skills, and competencies throughout the life of healthcare professionals. It is essential to meet patient needs, provide healthcare services, and meet individual professional learning needs."

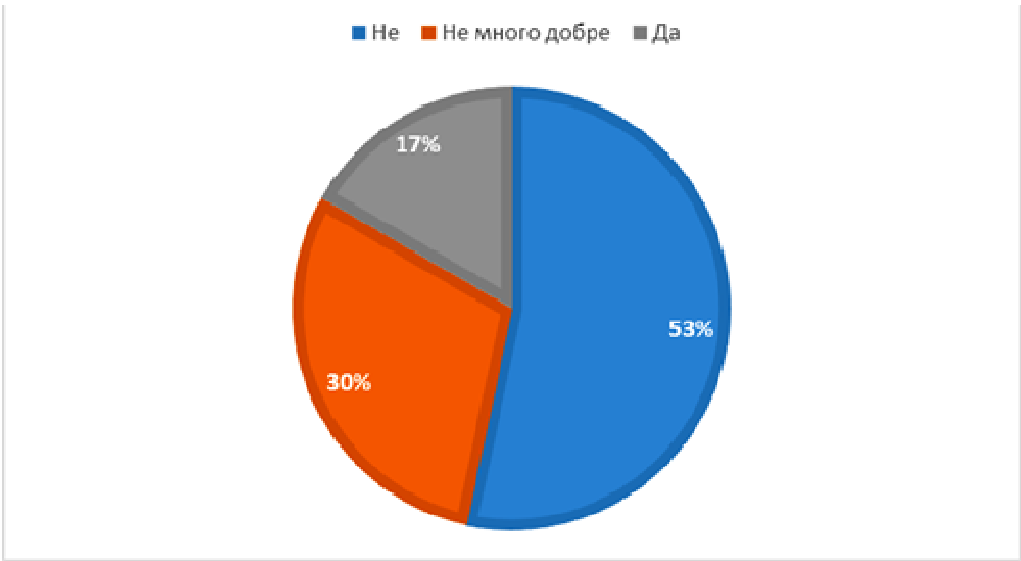


Fig. 24. Familiarity with the Laws and Regulatory Documents Concerning the Initiation of an Independent Practice

It's notable that 53% of midwives and nurses are unaware of the regulation for the right to independent practice, 30% respond with some doubt, and only 17% claim to know it well. (Fig. 24)

According to D. Dimitrova, midwives in Bulgaria are turned into auxiliary staff working for the doctor, not for the woman, which is the essence of the midwifery profession. The lack of autonomy in the activities of midwives in women's health clinics and reducing their responsibilities to mere technical tasks and strict adherence to doctor's orders are likely explanations for this result.

Following European directives and changes in national legislation and the Unified State Requirements for training in the "Midwife" specialty, midwives are competent and entitled to monitor the course of a normal pregnancy.

With the amendment of the Healthcare Facilities Act in 2007, opportunities were created within diagnostic-consultative centers and medic-dental centers for the establishment of units where midwives could independently offer midwifery care, grounded in the framework of Ordinance No. 1 concerning professional activities. These professional tasks that midwives are empowered to undertake independently encompass a spectrum of medical and healthcare services, including the diagnosis of pregnancy; the monitoring of normal pregnancies; the performance of observations and interventions on the mother during the dilation phase of the cervix; the conduction of normal childbirth when the fetus is in a head-down position, including the execution of episiotomies under a doctor's supervision; postnatal care for the mother and newborn up to the 45th day following birth; care and monitoring during the postpartum period, including checks for uterine involution; and immediate post-birth monitoring of the mother and child, diagnosing any issues requiring medical intervention.

The International Confederation of Midwives defines the autonomy of the midwife as providing care during pregnancy, childbirth, and the postnatal period, and making decisions in partnership with the woman.

In terms of healthcare, there is a significant deficit in professional health management within the system. Leadership roles in healthcare are not occupied by health care managers. Decisions and management of healthcare services are made by physicians or other personnel who are not familiar with the specifics of care activities.

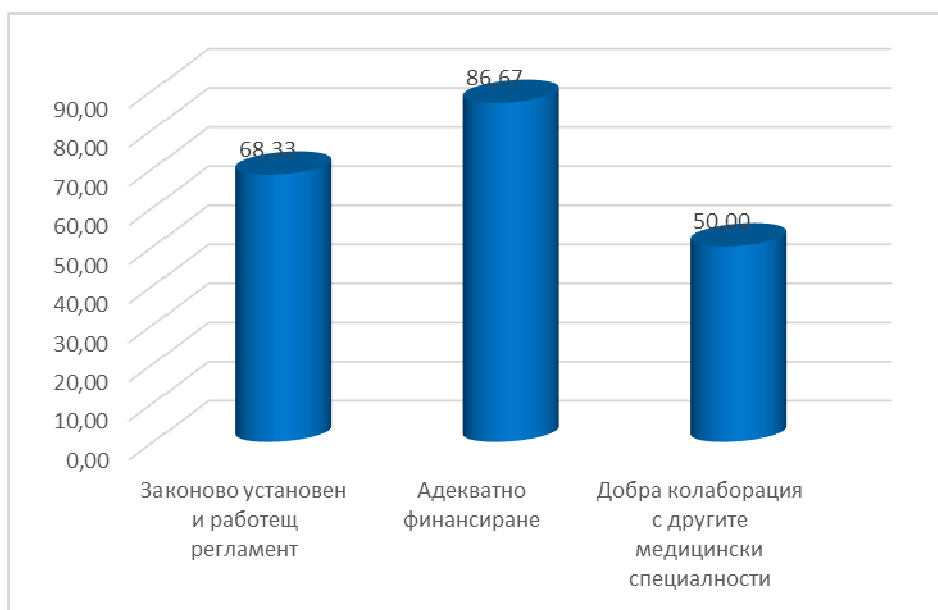


Fig. 25. Incentives for starting independent practice.

Key incentives for initiating independent practice include a stable and well-regulated legal framework, and adequate funding (Fig. 25). Public opinion holds medical specialists and doctors as equally valuable members of the healthcare team. However, current studies show many nurses and midwives work under poor conditions without proper equipment and support, increasing the risk of poor services. Healthcare activities are a crucial part of treatment, rehabilitation, and prevention of health issues in newborns and nursing mothers during the first year of life. Regulatory governance of these activities is essential for applying quality care.

Good collaboration with other medical specialties also constitutes a significant percentage of the motivation to start an independent medical practice. 50% of surveyed midwives and nurses rate consider partnership in healthcare for young children as leading in the decision to start a private practice.

When developing the National Framework Agreement (NFA), the opinions of healthcare specialists, who are integral to the healthcare system, are not considered. Healthcare activities are not described in the clinical pathway algorithms, medical standards, and activities of GPs. Given that clinical pathways for hospital care are a quality instrument and a mechanism for activity payment, it is clear that the work of healthcare specialists remains undescribed, undervalued, and unnoticed.

Investment in nursing and midwifery, as well as effective legislation, regulation, education, and employment practices, are needed. A fundamental shift in national and global policy is also required to understand what nurses and midwives can achieve if given the opportunity.

Due to a shortage of nurses and midwives, medical orders by doctors (procedures, medication therapy, planning, and conducting examinations) predominate in practice, while healthcare for young children, hygiene care, communication with the family, and other fundamental nursing care are minimized or performed unprofessionally by the patient's relatives. The increased medical documentation by doctors has turned the nurse into a secretary. The lack of patient care has become very tangible and worsens the health indicators of the nation!

The compensation for healthcare specialists in the country is offensively low given the responsibility of these professions and is not linked to the volume and quality of their work. There are serious disparities in payment and income between medical labor and the labor of healthcare specialists.

International experience in healthcare shows that child consultation exists in all countries either as private, state, or municipal services. For instance, in

Switzerland, most child health protection structures are private but are largely supported and financially backed by society. They employ nurses specialized in social and preventive pediatrics. Their assistance includes home visits, control and advice on-site and by phone, and facilitating parental participation in various training courses. In Germany, the organization of child healthcare is entirely in the hands of the family doctor, but mothers can also turn to the public health service's child consultation.

Healthcare activities are an extremely important part of treatment, rehabilitation, prevention, and health promotion. Legal regulation of these activities is essential for applying quality care.

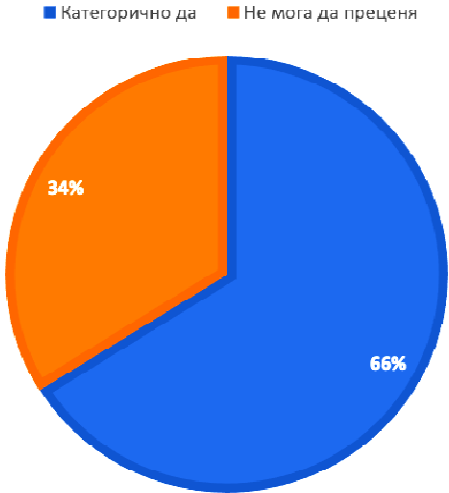


Fig. 26. Pregnant women's opinions on the restoration of patronage care.



Fig. 27. Mothers' opinions on the restoration of patronage care.

Nearly two-thirds of pregnant women and mothers believe that consultations and the "Patronage Care" service should be restored, and among the medical professionals surveyed, 100% agree that patronage health care should be renewed. 66% of surveyed pregnant women would fully trust a midwife, despite it being their first pregnancy, demonstrating their high confidence in independent pregnancy monitoring by a midwife.

A vital aspect of the active and high-quality observation of pregnant women involves home visits, a practice firmly established before the healthcare reform in our nation. It is a duty of the district midwife to carry out no less than two to three patronage visits to the pregnant woman's home throughout her pregnancy. These visits aim to evaluate the living conditions where the pregnancy is progressing and to aid in preparing the home and family for the newborn's arrival.

Regardless of the modest awareness of midwifery skills among the public, pregnant women hold the view that home visits by midwives would be extremely helpful. The feedback obtained reflects a conscious need for midwifery care among women during their pregnancies. Pregnant women have a limited understanding of the competencies of midwives concerning pregnancy monitoring; nevertheless, they would entrust them to autonomously monitor

their pregnancies (with the provision of medical assistance when needed). The demand for enhanced care quality and readiness for parenting is highlighted by the positive perceptions of the utility of home visits and the favourable attitudes towards constant access to a midwife.

Furthermore, leveraging the qualifications of nurses and midwives could result in considerable financial savings in healthcare. There is no justification for doctors, who have higher salaries, to perform tasks that healthcare professionals can competently handle.

The traditional roles of midwives and nurses in pediatric and gynecological consultations have proven over the years to be significantly beneficial for child and women's health. These functions should be reinstated with appropriate compensation. Since the early 1970s, specifically between 1973-1974 and over the next two decades, pediatric consultations were conducted strictly according to a specific algorithm, producing excellent outcomes. They played a leading role in preventing and controlling infectious diseases among children, utilizing separate entrances and service orders in pediatric offices, home visits, active case finding, and in managing immunization schedules. The care of healthy children was a priority for nurses and midwives in pediatric wards in obstetrics and gynecology departments, nurseries, pediatric consultative centers, and school healthcare settings, where they primarily worked, involving nurses with a pediatric profile. There was zoning, and the training of these specialists was synchronized with the needs of the area they served. Home patronage was conducted by the local midwife or nurse.

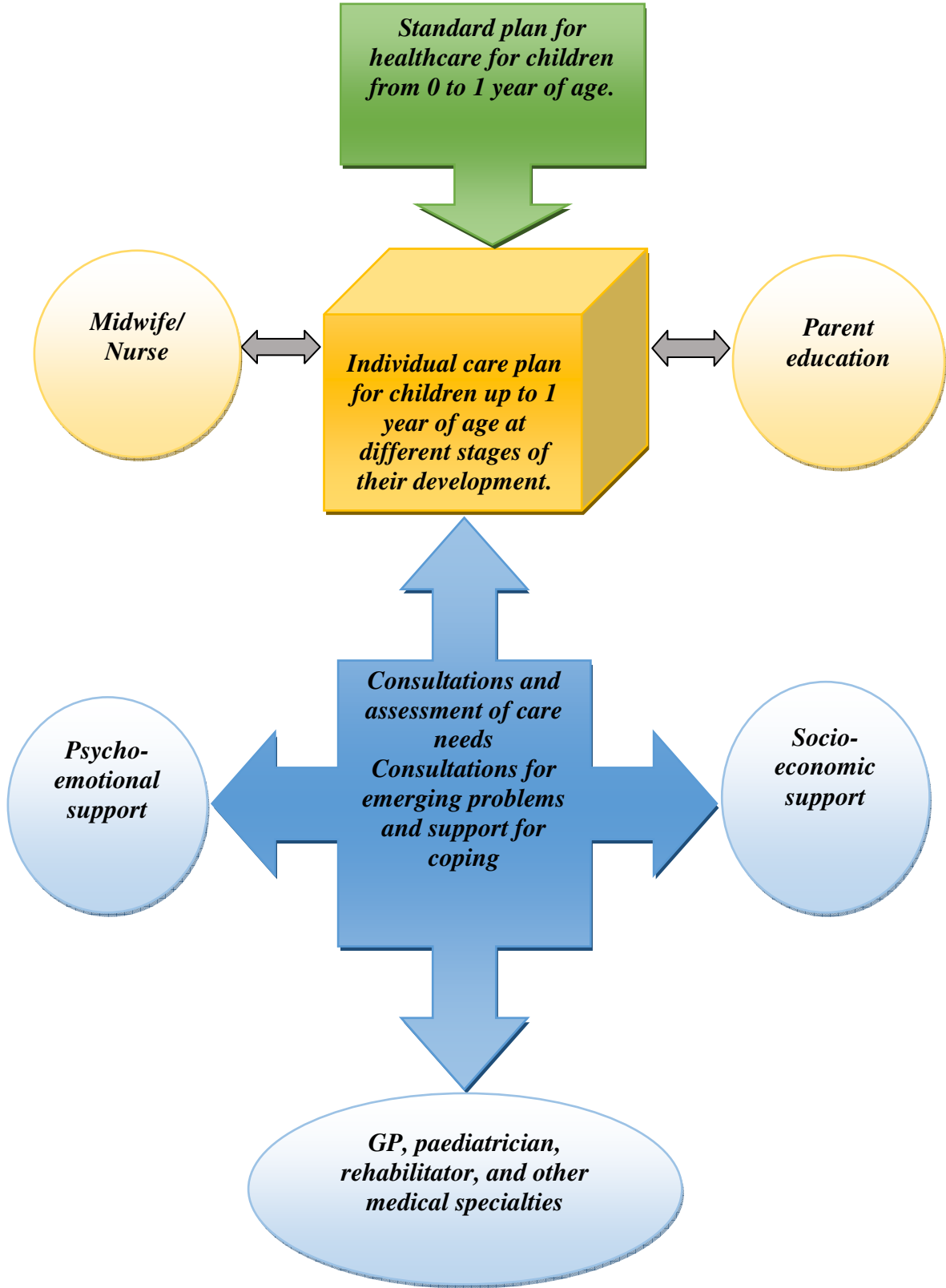
Personalized care recedes in the absence of time and resources, leading many patients, women, and mothers to experience feelings of detachment and neglect, lacking the information and support they need and expect. A significant number of midwives serve several patients in a single day, leading to a loss of care continuity, reduced opportunities for patient education, and hindering the

development of relationships and trust. Ultimately, what healthcare professionals desire is to provide the best possible care for their patients, and the lack of a personalized approach limits their ability to do so.

Countries that invest in and develop their nurses and midwives can achieve a rapid, cost-effective expansion of universal healthcare coverage. This is supported by data from the Directorate-General for Health and Food Safety of the European Commission, which indicates that for nearly 70% of Europeans, it does not matter who treated them for a non-life-threatening illness or condition—be it a doctor or a nurse—as long as they possess the appropriate training and skills.

In terms of healthcare, there is a significant deficit in professional health management within the system. Leaders in healthcare are not part of the executive structures. The leadership and management decisions regarding healthcare are made by doctors or other personnel who are unfamiliar with the specifics of care activities.

3.5. Health-promoting model for providing care for children in the neonatal and nursing period.



The health-promotion model for childcare during the neonatal and nursing periods includes the following key elements:

Element 1 - A standard healthcare plan for children from 0 to 1 year-old based on the nationally developed Early Childhood Development and Learning Standards: from birth to three years.

Element 2 - An individual care plan for children up to 1 year-old during the various developmental periods - midwives and nurses have the necessary professional qualifications to develop an individual care plan for infants based on their care needs, as well as to train parents.

Element 3 - Consultations and assessment of care needs can be conducted by midwives and nurses, both in medical facilities and at home. The physical and neuro-psychological development of children is associated with problems that require consultation and training from a midwife and nurse. Parents definitely need psycho-emotional and socio-economic support to provide optimal care for the newborn and nursing child.

Element 4 - Care for children in the neonatal and nursing periods is complex and requires a range of professionals and specialists who apply a team approach to these children's care. The midwife and nurse play a leading role in the care of the children, but the observation and treatment by the general practitioner and pediatrician are of paramount importance. Children with developmental problems during this period need the professional assessment and care of a rehabilitator, physiotherapist, educator, psychologist, and other specialists.

Implementing the health-promotion model for childcare in the neonatal and nursing periods guarantees the provision of professional care and support to families. Easy access to information through internet services does not provide parents with the information they need for their child. The training of midwives and nurses is aimed at developing their skills in assessing the care needs of

healthy and ill children, making them the best specialists to assist in the care of the newborn and nursing child.

Scientific research and studies in the field of child development provide medical professionals with sufficient knowledge to ensure adequate care for each child, including developing an individual care plan and performing a periodic assessment of the indicators for physical and neuro-psychological development of the child. Early detection of developmental deviations creates opportunities and conditions for their correction and the inclusion of other specialists in the team to implement the individual care plan.

Parents and families as a whole should be prepared, trained, and supported in caring for the newborn and nursing child, with a significant portion needing psycho-emotional support or socio-economic assistance. Professional consultation and assistance from midwives and nurses should be guaranteed for every need of the parents.

The developed health-promotion model for childcare in the neonatal and nursing period outlines the mechanism for creating an organization and financing independent practices of midwives and nurses within their professional competencies.

Primary medical care plays a key role in the proper development of the child from birth to 1 year of age, given its essential function to provide basic health services and care as close as possible to the daily environment of the children and families. This includes health promotion activities, health education for children and families, and building skills for a healthy lifestyle, disease prevention and its consequences, including vaccination. To fulfill this role, primary medical care must be provided with well-trained and motivated general practitioners and pediatricians, nurses, midwives, and other medical specialists.

An important supplementary element of pediatric care at this level is the patronage care for pregnant women and children, which should be developed as an integral part of the primary medical care system. In this regard, we need to

analyze the scope, type, and method of providing patronage care based on the developed model for their national provision, including a specific mechanism for financing and the necessary financial resources.

A significant issue with the current practice is the deepening personnel deficit in primary medical care and the uneven distribution of medical practices, mainly concentrated in larger cities. Mechanisms are lacking to stimulate doctors and health care specialists to open new practices in small and remote 24 areas. This leaves many pregnant women and children living in these regions without easy access to basic medical care. To overcome these problems, interventions to stimulate medical professionals to work in areas with limited access to medical assistance will be implemented through the Recovery and Resilience Plan and operational programs. These interventions should include the establishment of health-consultation units in areas with limited access to healthcare, equipping practices with modern medical equipment allowing for a broader range of medical services and the possibility for remote consulting and monitoring (telemedicine), financial mechanisms to encourage the professional mobility of medical specialists, who will be supported to open and work in practices in hard-to-reach and remote areas, and more.

The use of modern incentives aimed at medical professionals for continuous qualification improvement and development of skills for consulting and caring for children and families is necessary. All these measures should be supported by adequate organizational and financial mechanisms to develop the capacity of primary medical care with a focus on health promotion and disease prevention.

To ensure the provision of timely preventive, diagnostic, and therapeutic health services, resources must be secured for the full implementation of medical and health activities under the "Maternal Health" and "Child Health" programs of the NHIF, as well as the gradual expansion of the volume and scope

of the health services package for pregnant women and children guaranteed by the NHIF budget.

IV. CONCLUSION, FINDINGS, RECOMMENDATIONS

Nurses and midwives play a central role in all health systems. They support people in every aspect of their health and well-being - from promoting health to managing chronic diseases and specialized services. The progressive aging of the population shifts the focus of the system from disease prevention to hospital treatment, and our attention to children is neglected. Globally, many nurses have taken on advanced and specialized roles, and many services led by midwives and nurses provide new and innovative care models. They can be the basis for a rapid, cost-effective expansion of high-quality universal healthcare (UHC). It is time for these care models to be implemented in our country.

On one hand, the prolonged health "reform" seems to be the "culprit"; on the other hand, the NHIF with its frameworks, and on the third - the erased profiles of nurses as part of the educational reform, which were planned to develop into specializations, but did not happen/work? In recent years, after our health reform, a new higher professional status and mission of the nurse with a bachelor's degree according to European standards are being established.

The profession of the midwife and nurse is rooted in the principles of compassion and personalized care, yet many of them struggle to provide a truly personalized experience for their patients due to the increasing demands of their workload. The traditional model of health care - which includes individual visits with patients - is no longer in harmony with the modern health system.

Nurses and midwives make a significant contribution to the development of health promotion assessment and intervention knowledge from various perspectives. The strengths and potentials of research programs, issues, theoretical models, designs, and health promotion programs of nurse care are evident.

The social and domestic environment can influence health through modeling the pathways of child development and biological vulnerabilities. Health promotion implies an intervention based on the interaction of family and

community factors, as they are related to health and health outcomes. The financial condition of the family directly interacts with the available and accessible health services in the community to affect the health status of children and families. The level of education and qualification, income, and profession become determining criteria for lifestyle and the number of children in the family. They are closely related to the level of health knowledge of parents, including the importance of breastfeeding in protecting their child's health.

Feeding children in the nursing and early childhood stages is of great importance for their optimal growth, development, and good health. It must comply with contemporary national recommendations for healthy feeding of infants, good European practices, and global trends.

The health of children and mothers largely depends on the accessibility, quality, and scope of medical care received before, during, and after birth. Existing health inequalities, caused by unfair differences in access to pediatric care between different regions of the country or between different population groups.

Currently, the system for health services for children exists independently and isolated from other systems providing services for children and families, lacking coordination in intersectoral cooperation.

Primary medical care plays a key role, given its fundamental function to provide health services and care as close as possible to the daily environment of children and families, including health promotion activities, health education for children and families, and building skills for a healthy lifestyle, disease prevention and its consequences, and preventive activities, including vaccination.

An important element of pediatric care is patronage care for pregnant women and children, which should be developed as an integral part of the primary medical care system. This necessitates analyzing the volume, type, and method of providing patronage care and developing a current model for their

national provision, including a specific financing mechanism and necessary financial resources. Primary medical care must be ensured with well-trained and motivated general practitioners and pediatricians, nurses, midwives, and other medical specialists. Professional development of nurses and midwives and the need to update their competence is a mandatory element of the overall model of modern health care for newborns.

Nurses and midwives are acknowledged globally as essential and economically efficient contributors to the quality of care for pregnant women, mothers, and newborns. Their professional care extends beyond just accurately following medical prescriptions and skillfully performing procedures; it encompasses a deeply human sense of aid, compassion, and empathy, often communicated through words, glances, and gestures.

CONCLUSIONS

From the analysis of data gathered in the empirical study, several key conclusions emerge:

➤ The majority of pregnant individuals and new parents seek more accessible information and guidance during pregnancy and early parenthood. This underscores the necessity for healthcare professionals to offer an expanded array of educational resources and services.

➤ Many respondents express a preference for midwives to assume greater roles during uncomplicated pregnancies, indicating that midwives could be pivotal in providing more personalized and holistic care and support for pregnant women and new parents.

➤ Healthcare professionals themselves are eager for additional educational opportunities to enhance the care and support they provide to their patients. This highlights the importance of continuous education and training programs, aligning with the best practices in the field.

➤ There is a consensus among mothers and healthcare professionals regarding the competencies of midwives and nurses in delivering care and support during pregnancy and parenthood. This suggests a need for increased recognition and support for these roles within the healthcare system and the broader community.

➤ Surveys among midwives and nurses reveal a majority are inclined towards health-promotion and preventive activities for children from 0 to 1 year-old, indicating a demand for further training related to these activities.

➤ All surveyed groups unanimously recognize the significance of patronage care as a crucial component of support in raising children during the neonatal and nursing periods.

RECOMMENDATIONS

Based on these conclusions, the following recommendations are proposed to relevant institutions:

To the Ministry of Health:

- ❖ Develop and expand independent practice models for nurses and midwives to enhance health promotion across all aspects and for care of newborns and nursing-age children.

To the Ministry of Education:

- ❖ Broaden and improve research programs in the field of healthcare, focusing on the health promotion of pregnant women and early childhood, exploring the prospects of nursing and midwifery care.

To Medical Universities:

- ❖ Ensure access to and utilization of modern communication technologies to foster collaboration and interprofessional learning through shared lectures, seminars, and research.

To all institutions:

❖ Develop theoretical models for studying health promotion in nursing care, addressing the needs of both generally healthy children and those with special health needs, to potentially foster the study of health promotion for both groups.

❖ Conduct informational campaigns on the importance of care for newborns and nursing-age children, utilizing the voluntary activities of healthcare professionals.

❖ Establish a joint parental and professional organization (including midwives and nurses) for early childhood advocacy, supported by formal and informal institutions and organizations.

❖ Model a unified health care mindset among institutions, families, and the social environment.

V. CONTRIBUTIONS

Theoretical and Cognitive Contributions:

1. An analysis of the healthcare specialist needs by region in the Republic of Bulgaria has been conducted, along with a correlative analysis with other European Union countries.

2. For the first time, a study on the opinions of pregnant women and mothers of young children regarding the need for patronage care and a holistic approach in healthcare for children during the neonatal and nursing periods has been conducted.

3. Opportunities for improving the education of healthcare professionals, with a focus on midwives and nurses, as well as possibilities for retaining them in the workforce of Bulgaria's health system, have been identified.

Practical and Applied Contributions:

1. Necessary steps have been outlined to improve public awareness of healthcare in early childhood care, emphasizing nursing and midwifery as public health issues.

2. The importance of healthcare as a culturally safe practice that respects diversity and builds strong relationships with patients has been highlighted.

3. A health-promotion model for managing care for children from 0 to 1 year of age in outpatient care has been proposed, introducing new approaches and modern methods and tools.

**SCIENTIFIC AND PUBLICATION ACTIVITY RELATED TO
THE DISSERTATION PAPER:**

I. Articles related to the dissertation paper:

1. Zayakova, G., P. Bikova, "Traditions in Health and Midwifery Care for Newborns and Young Children," *Interdisciplinary Civil Academy – INGA, TEMTO, Sofia*, 2021, 46th edition, 279-284, ISSN 1313-9134.

2. Zayakova, G., D. Hadzhideleva, "Massaging and Tempering the Newborn Child," *Interdisciplinary Civil Academy – INGA, TEMTO, Sofia*, 2021, 46th edition, 142-149, ISSN 1313-9134.

3. Zayakova, G., P. Bikova, "Family Health – A Key Factor in Shaping Child Health," *MEDIS, International Journal*, 2022, 1(4), 15-19, ISSN 2671-3497.