

NUTRITION AND LIFESTYLE MONITORING OF PREGNANT WOMEN

PhD Candidate: Oana Maria Iacob (Bucur)

Coordinator: Univ. Prof. Dr. Anca Ileana Sin

The first 1000 days after conception are considered sensitive events which over time can define the child's health and through which the risk of subsequent non-communicable diseases may be changed. Factors influencing intrauterine fetal growth and development can be systematized as follows: genetic factors, environmental geographical factors, maternal hormonal factors, quality and quantity of transplacental maternal-fetal exchanges, fetal metabolism, nutrition during pregnancy and maternal pathology. In addition to the factors mentioned above, the pregnant woman's nutrition and healthy lifestyle are essential for ensuring a normal evolution of the pregnancy as well as for the determinism of maternal and fetal health.

Starting from the hypothesis that ethnic, social-economic, nutritional and lifestyle differences influence the development of a pregnancy, mother's health and, later, the newborn's health, we proposed the following objectives: assessment by ethnicity (Romanian, Hungarian, Romani) of the social-economic situation and the identification of risk factors in pregnancy; identification of lifestyle in pregnant women in association with anthropometric indices of newborns by ethnic groups and assessment of the perception of pregnant women at a national level with regard to risky eating behavior and sources of information on healthy eating.

In order to achieve the proposed objectives, we performed the following studies:

Study no. 1: The social-economic situation and the risk factors in pregnancy was performed on a group of 1,278 women in Mureș County, hospitalized for childbirth assistance. Descriptive statistics were used in this study to determine the nutritional prevalence during pregnancy and to estimate the prevalence of potential risk factors in pregnancy. The assessment of the monitored parameters was performed on ethnic groups (Romanian, Hungarian, Romani) following the characteristics below: educational level, occupational status before birth, alcohol, coffee and tobacco consumption, lack of exercise, frequency of medical consultations with a gynecologist during pregnancy, gestational age, treatment with vitamins and folic acid before and during pregnancy, the woman's body mass index before pregnancy and weight gained during pregnancy.

Study no. 2: The lifestyle of pregnant women in association with anthropometric indices in the newborns, was performed on a lot consisting of 1,275 postpartum women hospitalized for childbirth assistance in various maternity hospitals operating in Mureș County. In this study, starting from the parameters of pregnant women grouped by ethnicity, such as: age, body mass index before pregnancy, weight gain in pregnancy, risky lifestyle and nutrition during pregnancy, the following parameters could also be analyzed

in the newborns grouped by ethnicity: Z score for gestational weight and age in girls and boys, Z score for gestational length and age in girls and boys, APGAR score and number of premature births. (<37 weeks).

Study no. 3 - Women's perception of information sources and attitudes towards healthy eating is a cross-sectional epidemiological study, based on a questionnaire to assess lifestyle and motivations in choosing food, in relation to social and cultural profile and to assess sources of information on the adoption of a healthy diet, in 382 adult women in Romania, of which 127 pregnant women (33.24%). The most important aspects highlighted are: demographic aspects, social investigations on women's attitude towards sources of information, emotional, economic, social, cultural, marketing and sales motivations in choosing food, motivations related to the influence of the environment and current trends in the food policy.

Starting from the three studies, the following peculiarities were identified:

In the context of all the factors studied, women belonging to the Romani minority group have a higher risk of deficient eating behavior and lifestyle inappropriate for the pregnancy period, compared to other participants in the study, while between Romanian pregnant women – representing the majority – and women belonging to the Hungarian minority there were no statistically significant differences.

In the context of parameters such as social-economic lifestyle, education, unbalanced nutritional intake, alcohol, coffee and tobacco consumption during pregnancy, a significant share of Romani women who had newborns with lower birth weight and premature births were identified.

The prevalence of low birth weight of newborns from mothers of different ethnicities in whom a balanced eating behavior was identified was low.

The sources of information are used differently by the women included in the batch and at the same time the credibility in the various sources of information is made differently, depending on the level of education and the subjective perception of each person. Food choices depend not only on the individual, but are influenced by various factors, such as social, cultural, economic and environmental factors.

Following the results obtained from our study, the need for an integrated approach to behavioral risk factors in pregnancy becomes relevant, being preferable to isolated measures against one or another of the risk factors analyzed.

Keywords: nutrition, risk factors in pregnancy, anthropometric indices, newborns, pregnant women, lifestyle