

## **ABSTRACT**

**Introduction:** The diploma thesis deals with the issue of compensation of type 1 diabetes mellitus during pregnancy and its relation to the health of mother and child. It further summarizes and describes the variable factors that may have a direct effect on current glycemic variability and long-term compensation of diabetes.

**Aims:** The theoretical part describes the characteristics of type 1 diabetes mellitus and the possibilities of therapy in pregnancy. Subsequently, factors influencing the compensation of diabetes in this period are summarized and described in more detail, especially food composition and possibilities of influencing postprandial glycemia, effects of type and intensity of physical activity and psychosocial aspects related mainly to stress from potential negative effects of glycaemia on the fetus. At the end of the theoretical part, the risks and complications for the mother and the fetus arising from long-term unsatisfactory compensation of diabetes are presented. The aim of the practical part of the thesis was to determine the extent of women's knowledge about the compensation of diabetes in pregnancy, followed by determining the effect of the extent of knowledge on long-term compensation, expressed by glycosylated hemoglobin.

**Methods:** Data for the diploma thesis were obtained on the basis of a quantitative questionnaire survey, which took place using social networks from early February to late March 2021. The questionnaire was designed by anonymous sample survey based on the voluntary nature of respondents with a focus on the target group of women with type 1 diabetes mellitus who are pregnant or have children. The resulting questionnaire was created using the survio.cz service. The obtained data were then statistically processed using a spreadsheet program and interpreted using tables and graphs.

**Results:** A total of 56 women participated in the questionnaire survey. Most respondents were well acquainted with the general aspects of diabetes compensation in pregnancy. The overall evaluation of the obtained results of the knowledge part of the questionnaire survey based on the correlation coefficient did not confirm a significant dependence of the extent of knowledge of the interviewees or the achieved education of the interviewed women on their long-term compensation of diabetes.

**Conclusion:** Based on the obtained results, it can be said that in addition to the knowledge of the recommendations for therapy, the interaction of several individually variable factors contributes to the compensation of diabetes. Therefore, when educating women with type 1 diabetes mellitus who are planning to become pregnant or are already pregnant, it should be noted that the resulting glycemic response to the recommendations may not be the same. Therefore, in order to achieve optimal treatment results, it is always necessary to actively cooperate with the doctor, thanks to which it is possible to achieve optimal compensation of diabetes together.

**Key words:** type 1 diabetes mellitus, pregnancy, compensation, insulin therapy, glucose monitoring