

ABSTRACT

The bachelor thesis deals with the topic of childhood obesity and the impact of dietitian education on its prevention and treatment. The theoretical part defines overweight and obesity in children and adolescents, its prevalence, causes, diagnosis, prevention and treatment.

The practical part is based on data drawn retrospectively from the medical documentation of the dietitian's and obesitologist's outpatient's department of the Department of Pediatrics and Hereditary Metabolic Disorders of the General Hospital in Prague. Data for the period from 1st January 2018 to 1st February 2022 were examined in 58 patients aged 3 months to 18 years 5 months with overweight or obesity. Only patients whose overweight or obesity was caused by a positive energy balance were included in the study. The data included the patient's anthropometric parameters at birth and during the treatment, blood pressure, uric acid levels and fasting blood glucose. The patient's parents BMI was found out at the beginning of the child's treatment.

The main goal of the research was to assess the effect of dietitian guidance in long-term cooperating overweight and obese patients compared to patients who visited the dietitian's outpatient's department once or not at all (although it was offered). In particular, the effect on changes in the patient's BMI Z-score was monitored.

The secondary goals were to determine the effect of adherence to the recommendations on the development of BMI Z-score, the effect of BMI on blood pressure, uric acid and fasting glucose, the proportion of obese pediatric patients interested in working with a dietitian, the relationship between parent's BMI and child's BMI and the relationship between anthropometric parameters at birth and overweight later in life.

The results show mild effect of the patient's long-term cooperation with the dietitian on the development of the BMI Z-score. Due to the fact that only 56,9 % of patients (33 patients out of 58) cooperated with the dietitian for a long time, it was not possible to statistically evaluate the effect of the education depending neither on the number of visits of the dietitian's outpatient's department, nor on the level of nutritional and lifestyle recommendations compliance. 31 % of the patients of the obesitologist's outpatient's department after the initial examination no longer continued in further cooperation with either the obesitologist or the dietitian.

Almost 90 % of patients in the obesitologist's outpatient's department had blood pressure above 95th percentile in at least one measurement with respect to gender, height and age, 10 patients had blood pressure above 95th percentile at least 3 times. Hypertension was demonstrated in 2 patients, the remaining patients discontinued cooperation before 24-hour blood pressure monitoring was recommended.

Fasting blood glucose levels were normal in 91,4 % of patients. Uric acid levels were increased in 22,4 % of patients, a statistical relationship between BMI Z-score and uric acid levels couldn't be demonstrated.

According to the data analysis, the quality of the diet record or the actual wearing of the record doesn't have a significant effect on the decrease in the BMI percentile.

Key words: Overweight, obesity, pediatrics, nutritional therapy, education