

Abstract

This diploma thesis is based on the fifth round of the Childhood Obesity Surveillance Initiative (COSI). This study is lead by World Health Organisation and on this study cooperate European countries including the Czech republic. In the Czech republic the study lead by Institute of Endocrinology in collaboration with practical paediatricians since the year 2008. The fifth round of this study took place in the Czech republic in 2019.

We collected anthropometric data and characteristic of family and school enviroment from 2289 children 6,5-7,99 years old. Prevalence of underweight according to cut offs of WHO was 2,88% (2,74-3,02), according to National Anthropological Survey (NAS) was 2,27% (1,84-2,7) and according to International Obesity Task Force was 1,35% (1,13-1,57). Prevalence of underweight was compared with prevalence of underweight in the last rounds of this study and with prevalence of overweight and obesity. Decrease of prevalence of underweight (WHO) in comparsion with last round of COSI study (2016) was significant in boys. We found non-significant increase in underweight prevalence in girls. A mild non-significant decrease of underweight in all children.. Prevalence of overweight and obesity according to cut offs of WHO was 22,24% (22,16-22,32), according to NAS was 18,92% (18,85-18,99) and according to IOTF was 16,47% (16,35-16,59).

We evaluated enviromental factors which can participate on developing of underweight. Relationship between underweight and enviromental factors was evaluated. The only significant positive factor was frequency of consumption breakfast. Negative association was found with higher birth weight and higher weight of mother.

Key words: underweight, prevalence of underweight, COSI study, enviromental factors