

Abstract

The COVID-19 pandemic has affected the daily routine of everyone in the Czech Republic, even school-age children, whose daily rhythm has been completely changed due to school closures. Children were left without regular exercise at school and in after-school clubs, they were eating irregularly and with a different food composition, and their sleeping patterns shifted. Many children returned to school fat and physically unfit after the government measures ended. For fat children, this change could have a negative impact on their health.

The aim of this study was to obtain information on changes in eating and exercise habits of school-aged children before, during and after the lockdown. The information obtained from each period was compared and evaluated. Another aim was to determine whether the observed group of children had gained weight or not due to the changed daily routine during the covid restrictions, and for those who had gained weight, selected values from blood tests taken by a paediatric and adolescent general practitioner were monitored to see whether the values had moved outside the reference limits.

By processing the questionnaire responses, I expect to confirm the three suppositions that children worsened their eating habits during the lockdown in both composition and frequency of servings per day, that they did not maintain the same amount of active exercise during the lockdown as before the covid measures, and that one-third of the children became fat during the covid measures.

The data collection was conducted in the form of electronic questionnaires using the online tool Survio, which ensured the necessary anonymity of respondents and the possibility to distribute the questionnaire easily among respondents. Primary school children were approached to complete the first questionnaire and if these children had become fat during the covid period, their parents were asked to provide the results of blood tests of these children (second questionnaire). The information obtained was then converted into tables and graphs (Excel), evaluated and commented. The survey, conducted by anonymous questionnaire, involved 63 respondents in the first phase and 13 respondents meeting the required fatness parameter in the second phase.

The questionnaire survey found that children ate more often during the covid, compared to the time before the covid. They ate vegetables only 1-2 times a day and the number of those who did not eat them at all increased. The children also started to eat more sweet foods or drink more sweet drinks, they spent less time exercising and slept longer, almost half of them increased their weight. Children who reported weight gain were monitored for parameters from blood tests and parameters to determine BMI and percentile chart readings. All patients who had higher blood values measured were only slightly increased. As a result, changes in diet, physical activity, overweight or obesity, and/or changes in sleep duration did not result in total cholesterol, HDL cholesterol, LDL cholesterol triglycerides, or glycaemia values elevated above the reference range. However, it is evident from the sample of respondents that overweight and obesity are currently a very pressing problem in the current child population and we need to encourage them to adopt better dietary and physical activity habits.

Keywords: diet and nutrition, sports activities, school-age child, obesity, COVID-19 pandemic