Abstract

The bachelor thesis is focused on proving the close relationship between worsening physical condition among preschool children and the growth of their body fat. These two changes are considered to be the result of the modern way of life with the lack of physical activity. The fact that the situation has worsened can be seen in the increasing prevalence of obesity among children. The survey for the bachelor thesis took place in 2017 April until July among 176 4- to 6-year-old children (87 boys and 89 girls) who were attending kindergarten. The first technique used was to gauge subcutaneous fat by measuring skinfold thickness. In the case of children, the skinfold at the triceps (above m. triceps brachii) and the subscapular skinfold (above the shoulder blade). The second technique involved motoric testing. 20-meter run characterizes the speed skills of children. The long jump defines the explosive strength of lower limbs, coordination, and nimbleness. Ball throw helps to test the level of explosive strength of upper limb connected with nimbleness and coordination. In the end, we used the Slaughter skinfold-thickness method to gauge the percentage of subcutaneous fat. We compared the long-term changes with the two surveys (Pařízková, 1977) and (Dvořáková, Baboučková, Justián, 2010). Our findings show the significant decrease in the motoric skills of children except for speed skills. Intersexual differences are in favor of boys. The only exception here was girls aged 4. These girls compared to boys had better results in the 20-meter run and the long jump. The research confirmed that two skinfolds thickness was significantly higher in girls. This parameter is also given by physiological factors. The increasing growth of subcutaneous fat was confirmed as well in comparison with the preceding surveys from 1977 (Pařízková) and 2010 (Dvořáková, Baboučková, Justián). 5-year-old girls had approximately twice as much subcutaneous fat in 2017 (14,311%) as 6-year-old boys in 1977 (7,69%).

Keywords: preschool children, motoric skills, adipocyte, skinfold thickness