

Some observations concerning body composition in teenagers with mental disabilities

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Abstract

Background. Research and the application of the best methods for maintaining the optimal body weight have become some of the principal present-day problems. The use of diets to achieve and maintain the ideal body weight has proved to be inefficient unless they are accompanied by a correct physical exercise regime and kinesitherapy.

Aims. This study aims to ascertain whether the practice of physical exercise induces the optimization of body weight and a better physical development. We measured the hypodermic tissue, weight and height of 120 teen-agers (40 pupils with mental disability, 40 swimmers and 40 non-sportsmen). The Parîşcova method and body mass index were used to interpret the data acquired.

Methods. The Parîşcova method was used for the evaluation of the adipose tissue. This method permits the measurement of the subcutaneous tissues with the help of a special device. We evaluated 5 subcutaneous tissues, the same in both girls and boys.

We used the BMI formula to calculate the body mass index. For all categories of the values we calculated the average for the body composition (adipose tissue and the body mass index), in order to interpret the results. The new data were statistically interpreted by graphs using the SPSS program and the t Student test.

Results. There were significant differences between the adipose tissue of the teenagers with mental disabilities compared to the other groups. Also, on average the body mass index for the mental disabled girls was in the overweight category while the other girl groups were in the normal category. However there were no differences in the male groups, though boys with a mental disability were heavier than in the other groups.

Conclusions. At the specific ages researched, the girls presented a greater adipose tissue percent than the boys. Even if the differences were not significant at the level of the researched groups, females demonstrated an increased tendency in the adipose tissue. With or without mental disabilities, all teenagers must keep their weight at a normal level according to their body composition.

Key words: body composition, mental disability, sportsman and nonsportsman teenagers.