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Weight problems and lifestyle in a sample of schoolchildren: methodological aspects

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Aim: During the past two decades, the prevalence of obesity in children and its relation with the lifestyle has risen greatly worldwide. A sensible suggestion for a unified system to allow a rapid screening of childhood obesity has been requested. The first aim of this study was to understand which is the best anthropometric parameter, the body-mass index (BMI) or the waist circumference (WC), to evaluate the weight problems in a group of schoolchildren (7–17 y.o.). The second aim was to evaluate the relation between the overweight and the lifestyle of these students: physical activity (sport and physical exercise) and physical inactivity (homeworks and the use of Video Display Terminal, VDT).

Method: Anthropometric data were collected in a group of 326 subjects (176 females F, 150 males M) attended a school of Torino. Moreover, a questionnaire was distributed to analyze their lifestyle.

Results: The screening shows that only the BMI underlines underweight cases (3 % M and 2 % F). WC overestimates the overweight cases, in particular in prepuberal females (WC 50 %, BMI 8 %) and it is less able to underline gender differences (WC 46 % M and 40 % F, BMI 21 % M, 11 % F). About the relation between overweight and lifestyle: schoolchildren show not one overweight case in both gender, when they reach the highest levels of physical exercise (11.7 h/week of physical activity for males aged 16.50 y.o. and 4.7 h/w of sport activity for females aged 10.50 y.o.). At the contrary, males aged 12.50 y.o. and females aged 16.50 y.o. show the highest levels of physical inactivity and overweight problems.

Conclusion: On the basis of our data it is possible to suggest the use of BMI as an early warning of health risks for schoolchildren (7–17 y.o.), since the WC alone results less sensitive. Moreover, the most cases of overweight and obesity in both gender appear when they are not addicted to sport activity or when they increase the time spent to physical inactivity.

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Prevalence of bigorexia and its relationships with physical activity in a sample of university students: a pilot study

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Aim: Bigorexia is a mental disorder characterized by a constant worry that his own body is too thin. Bigorexics are generally obsessed with developing muscles, overtrain, and overuse dietary supplements. Bigorexy may: (1) cause risk behaviors such as the use of anabolic steroids; (2) be associated with eating disorders, and (3) result in suicide attempts. Within this picture it is necessary to analyze prevalence and signs of bigorexia, in order to make aware healthcare providers. This process will help to early detect subjects at risk.

Method: 2,047 undergraduate students were asked to answer to an on line survey. The following instruments were used: the MDDI, for the identification of bigorexic subjects; Orto-15, for orthorexia nervosa; and the EAT-26 for eating disorders. Data were treated with descriptive statistics and one way ANOVA.

Results: The response rate was very low (n = 162; 7.9 %). 126 subjects were included in the analysis. 63 % of the sample (n = 79) was composed by women. 9 (7.1 %;) subjects were found at risk of bigorexia (MDDI score \geq 39). The one way ANOVA showed a significant relationship between the level of physical activity and the score in the MDDI total ($F_{(1-120)} = 10.65$; p = 0.001; $\eta^2 = 0.08$); MDDI Drive for Size composite ($F_{(1-120)} = 7.44$; p = 0.007; $\eta^2 = 0.06$) and MDDI Appearance Intolerance ($F_{(1-120)} = 32.11$; p < 0.001; $\eta^2 = 0.21$), controlling for age, gender and BMI. It is important to notice that each subject at risk of bigorexy showed at least another risk score; specifically: orthorexia (n = 2); general eating disorder (n = 3) and both of them (n = 4).

Conclusion: The sample characteristics (low BMI, physically active) may induce to think of a group more careful to the issues investigated, and since these data are just preliminary, a wider investigation is suggested. However, it is important to study and expand knowledge about bigorexia, trying to reduce the negative consequences of this recognized condition.

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