

Prevalence and determinants of childhood overweight and obesity in European countries: pooled analysis of the existing surveys within the IDEFICS Consortium

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Abstract

Objective:

To pool and analyse, according to standardized criteria and using harmonized variables, the existing databases of surveys on childhood overweight and obesity carried out from 1995 to 2005 in different European countries by research groups participating in the IDEFICS project.

Methods:

Detailed information from seven surveys in five European countries was collected. A common database was built after harmonization of the single studies regarding sample size and age distribution. Variables were critically reviewed and harmonized according to a common protocol. On the pooled database, descriptive comparative analyses on the prevalence of overweight/obesity and association analyses of these conditions with perinatal, parental and environmental factors were performed.

Results:

Starting from total number of 74 871 children, data of 18 626 children were included in the common database (Belgium, n=1766; Cyprus, n=5540; Estonia, n=583; Italy, n=4480 and Sweden, n=6257). After the exclusion of children outside the defined age ranges (4–5 and 9–11 years), the analysis was conducted on 1738 younger and 12 923 older children. Relevant differences in the prevalence of overweight/obesity were observed between countries in both age groups, the highest values being observed in Italy. Age- and gender-related associations between the risk of obesity/overweight and perinatal, parental and environmental factors were observed. An increased risk of high blood pressure in overweight/obese children was consistently observed.

Conclusions:

The results of this collaborative work of European research centres, although providing potentially useful findings, confirmed that the validity of comparisons between communities depends critically on the comparability of the survey methods. To monitor the current epidemic of childhood obesity and develop appropriate prevention strategies, a coordinated European approach is needed to collect homogeneous sets of epidemiological data.