Is single-child family associated with cardio-metabolic risk factors: the CASPIAN-V study.

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Abstract

BACKGROUND:

In the present study, the association of the cardio-metabolic risk factors and the status of single-child family were studied in a national representative sample of Iranian children and adolescents.

METHODS:

This cross sectional study was conducted as the fifth round of "Childhood and Adolescence Surveillance and PreventIon of Adult Non- communicable disease" surveys. The students' questionnaire was derived from the World Health Organization-Global School Student Health Survey. Using survey data analysis methods, data from questionnaires'; anthropometric measures and biochemical information analyzed by logistic regression analysis.

RESULTS:

Overall, 14,274 students completed the survey (participation rate: 99%); the participation rate for blood sampling from students was 91.5%. Although in univariate logistic regression model, single child students had an increased risk of abdominal obesity [OR: 1.37; 95% CI: 1.19-1.58)], high SBP [OR: 1.58; 95% CI:1.17-2.14)], high BP [OR: 1.21; 95% CI:1.01-1.45)] and generalized obesity [OR: 1.27; 95% CI:1.06-1.52)], in multiple logistic regression model, only association of single child family with abdominal obesity remained statistically significant [OR: 1.28; 95% CI:1.1-1.50)]. Also in multivariate logistic regression model, for each increase of a child in the family the risk of abdominal obesity [OR: 0.95; 95% CI: 0.91-0.97), high SBP [OR: 0.88; 95% CI: 0.81-0.95)] and generalized obesity [OR: 0.95; 95% CI: 0.91-0.99)] decreased significantly.

CONCLUSION:

The findings of this study serve as confirmatory evidence on the association of cardio-metabolic risk factors with single-child family in children and adolescents. The findings of study could be used for better health planning and more complementary research.

KEYWORDS:

Adolescents; Cardio-metabolic risk factors; Children; Family dimension; Single-child family