

Childhood Obesity 2020: Gender determines the pattern of correlation between Body Mass Index and Major Depressive disorder: Results from IRCAP Study- Nastaran Ahmadi- Yazd Cardiovascular Research Center, Shahid Sadoughi University of Medical Sciences, Yazd, Iran

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Abstract

Background: We aimed to determine the correlation of BMI with depression and find its determinants, in a large scale study sample.

Method: We Used the data of participants in the Iranian Children and Adolescents' Psychiatric Disorders Study (IRCAP), which was the first national community-based, cross-section study performed in this field in Iran, in 2017. Overall 30532 children and adolescents aged 6-18 was selected with random cluster sampling method from urban and rural areas of all provinces of Iran. Binary logistic regression methods were used to analyze the data.

Results: Out of total 30532, 25321 children and adolescents who had both measured BMI and interviewed for K-SADS entered to the study (12455 boys and 12866 girls). We categorized the participants according to the Iranian cut-off points for BMI classification. In boys after controlling for age, father's and mother's job and

education, and place of residence, the probability (OR) of depression in underweight, healthy weight, and overweight participants compared to obese subjects were 2.19 (95% CI: 1.00 to 4.81), 1.06 (95% CI: 0.73 to 1.55) and 0.80 (95% CI: 0.49 to 1.32), respectively. In girls subgroup, after controlling for aforementioned covariates, the probability (OR) of depression in healthy weight, overweight, and obese participants compared to underweight subjects were 1.29 (95% CI: 0.52 to 3.19), 1.54 (95% CI: 0.59 to 3.98) and 1.79 (95% CI: 0.68 to 4.69), respectively.

Conclusions Underweight boys were more diagnosed with depression than normal weight and overweight boys. While in girls by increasing BMI, the probability for co-morbidity of depression was greater.

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