

## Is metabolic syndrome prevalence higher in adolescents with self-weight status misperception?

by

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**Objective:** To evaluate if selfweight misperception affects the prevalence of metabolic syndrome in a nationally representative sample of Bolivian adolescents.

**Design:** The 2005 – 2007 MESA study was a national representative, cross-sectional school based-survey.

**Setting:** Data from 34 clusters randomly selected by population proportions from the 327 counties school districts lists.

**Subjects and methods:** 3445 adolescents (age 12 - 18 y, mean age 15.5 y SD 1.8) attending schools completed a self-nutritional status questionnaire. MetS IDF criterion components data was evaluated. BMI was calculated from measured heights and weights. The Bolivian Adolescents Percentiles Reference (BAP) was used for nutritional classification. Adolescents rate themselves as underweight, healthy weight and overweight.

**Results:** Incomplete questionnaires for height and weight, missing self-perception, and missing blood analysis for MetS components were discarded (39%). Data of 2134 adolescents' were analyzed (43.3%boys, 56.7% girls). According to BMI-for age 81.2% of respondents were healthy weight, 15.2% were overweight + obese and 3.7% underweight. Self-weight perception probed to be wrong in 29.7% of adolescents (32.8% girls, 25.7%boys). Binary-logistic regression analysis showed that girls are 30% less likely to provide correct self-nutritional status than boys. The same happened with underweight and overweight adolescents (OR 0.39, 0.31 respectively), but not on the obese, which were more likely to give correct selfreports (OR 1.39). Presence of metabolic syndrome in adolescents was not different in both correct and incorrect self weight reported groups when adjusted by nutritional status and gender. MetS prevalence was 7.8% in the overall population; 8.4% in girls and 7.2% boys, and 47.9% in obese, in 19.8% of overweight, in 4.0% healthy weight and absent in underweight adolescents.

**Conclusions:** This study shows that girls and overweight Bolivian adolescents are more likely to self classify their nutritional status wrongly. However, misclassification does not affected prevalence of MetS.

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