

Prevalence and determinants of misreporting of energy intake among Latin American populations results from ELANS study

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Abstract

Underreporting and overreporting of energy intake (EI) have been recognized as potential sources of bias. Dietary data mainly rely on proxy respondents, but little is known about the determinants of misreporting of EI among Latin American (LA) populations. This study was conducted using data from the multicenter Latin American Study of Nutrition and Health that consisted of information about sociodemographics, physical activity, and dietary intake from 9218 individuals aged 15 to 65 years who were living in urban areas in 8 LA countries (Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Peru, and Venezuela). Goldberg methodology was applied to classify the participants into categories of overreporter (OR), plausible reporter (PR), or underreporter (UR) of EI. Associations between misreporting and covariates were examined by the Kruskal-Wallis test, logistic regression, and linear regression. The prevalence of UR was 12.1% and OR was 14.1%. Costa Rica had the highest percentage of UR (24.4%) and the lowest of OR (7.3%), and Colombia had the lowest of UR (5.7%) and the highest of OR (22.4%). Furthermore, underreporters were more likely to be females from older groups with minimal education, white, physically active, overweight or obese, and living in Costa Rica. Overreporters were more likely to be younger, single, of low socioeconomic level, nonwhite, physically active, underweight or with normal weight, and from Colombia. The results demonstrated that sex, age, race, education status, and nationality seemed to influence the reporting behavior, which is essential to correctly interpreting potentially biased associations between diet and health outcomes, and improving nutritional interventions and public health policies..

Keywords

Misreporting, Energy intake, Latin America nutritional surveys.