Does dietary calcium intake is effective in regulating body weight in children?

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Fat Mass Index (BMI) relates body fat mass to height and allows comparing body fat mass of individuals at different heights. In this study, dietary calcium intake and some nutritional factors in obese children aged 8-10 were investigated. In this study, 580 children with BMI at or above the 90th percentile of age-specific data (BMI 6.9 kg/m²) are known as obese in case group and 600 children with BMI less than the 90th percentile are known as normal weight in control group was classified. In this study, body fat mass was measured by bio impedance analyzer and for calcium intake; we used a validated food frequency questionnaire. In the case group calcium intake was significantly lower than the control group (574±112 and 836±161 mg/d) (P<0.01), respectively. In this study, we use three model of logistic regression. In model one, after adjustment for total energy intake and the percentage of energy from macronutrients inverse association between calcium intake and obesity was significant. In model two by further adjustment for the effect of fruits and vegetable intake inverse association between calcium intake and obesity was significant and in model three by further adjustment for the effect of physical activity level inverse association between calcium intake and obesity became weaker but yet was significant. Even after controlling for confounding factors the inverse relationship between calcium intake and FMI remained significant. In this study, we showed that FMI may be a more accurate index that shows the association between calcium intake and obesity.

Biography
Mehnoosh Samadi has completed her PhD from Ahvaz Jundishapur University of Medical Sciences. She is the Assistant Professor of Nutritional Science department in the School of Nutritional Science and Food Technology of Kermanshah University of Medical Sciences, Kermanshah, Iran. She has published more than 10 papers in reputed journals and has been serving as an Editorial Board Member of repute.

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