Abstract

Assessment of Nutrients Intake and Dietary Consumption Patterns among Autistic Children in Gaza City, Palestine †

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Abstract: Autism is a neurodevelopmental disorder that may affect the nutritional management of children. This study was conducted to: (1) describe the effects of sociodemographic factors on the nutritional status of autistic children in Gaza; (2) estimate macro- and micronutrients dietary intake of autistic children; (3) evaluate nutrients intake adequacy; (4) predict the prevalence of iron deficiency anemia and serum zinc deficiency among autistic children; (5) assess anthropometric indicators among autistic children; and (6) predict factors associated with iron deficiency anemia, serum zinc deficiency, and stunting among the autistic studied sample. A cross-sectional study was conducted on 110 purposively selected autistic children who attended three rehabilitation centers in Gaza city from March to December 2018. The nutritional status of all participants was assessed using anthropometric data and biochemical assessment, and all parents filled out the interview and dietary questionnaires. An inadequate daily intake of some micronutrients such as calcium, magnesium, iron, zinc, vitamin A, and vitamin C was found among autistic children in Gaza. The daily intake of calcium was inadequate by all examined autistics. The prevalence of low serum zinc level and iron deficiency anemia was high at 55.5% and 49.1% among autistics, respectively. The prevalence of stunting was 11.9%. Statistically significant relations between nutritional inadequacy, anemia, and serum zinc level were found with economic status and eating behaviors. Autistics in the Gaza Strip have several medical and nutritional problems. It is imperative to conduct a detailed individualized nutritional assessment of those nutritionally vulnerable populations, which may decrease co-morbidities in addition to nutritional education programs.

Keywords: autism spectrum disorder; nutrition; macronutrients; micronutrients; anemia; serum zinc level; RDA; Gaza; Palestine


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