

Association of Patterns of Food Intake and Physical Activity with Weight-for-Height Measures among Preschoolers in Galigamuwa Division

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Childhood malnutrition is a major health problem in the developing countries in South Asia. This study attempted to determine the associations of patterns of food intake and physical activity with weight-for-height measurements among preschoolers in a rural area in Sri Lanka. This is a preschool-based cross-sectional study involving 250 preschoolers aged three to five years from Galigamuwa Divisional Secretariat area, Sri Lanka. Anthropometric data including height and weight were measured. Data on dietary pattern, duration of watching television and physical activity were obtained through a tailor made, validated, self-administered questionnaire filled by parent or guardian. Chi square test was performed to determine associations. The prevalence of overweight/obesity, moderate acute malnutrition and severe acute malnutrition was 3%, 15% and 8% respectively. Daily intake of breakfast was observed only in 59%. Most of the preschoolers consumed three meals a day (57%). The findings revealed that breakfast consumption ($p=0.000$), number of meals per day ($p=0.000$) were significantly associated with weight-for-height. Acute malnutrition showed a positive association with skipping breakfast and negative association with number of meals per day. Overall, 60% of the preschoolers reported to be engaged in outdoor playing activities >3 hour/day while 46% reported watching television >1 hour/day. However, all obese/overweight preschoolers reported to have spent >1 hour/day, watching television. The results revealed nearly 23% of the preschoolers were malnourished in the selected rural population. Skipping breakfast and reduced number of meals were predictors of acute malnutrition while time spent on watching television >1 hour/day and physical activity <3 hours/day were predictors of overweight/ obesity among preschoolers. It is emphasized that the parents and care givers be made aware of their role to prevent overweight/obesity and malnutrition by restricting unhealthy food intake patterns and encouraging physical activities. Further research using a large sample is required to confirm these findings.

Keywords: Food intake, Physical activity, Weight-for-height measures, Malnutrition, Obesity/overweight