

Abstract

Adolescence is the transition period between childhood and adulthood. A rapid physical, mental, emotional, and social development take place during this period. However, determining their dietary behavior and physical activity level is important, as they contribute for optimal childhood health and intellectual development. The objectives of the study were, to assess the dietary patterns and nutrient intake of adolescent school girls, validation of a food frequency questionnaire to assess micro-nutrient intake and to determine the physical activity level of adolescent school girls. A total number of 223 adolescent school girls, aged 13 – 16 (mean age = 14.51 ± 0.6) studying in Pannala sub zonal education division were recruited for this study. Dietary patterns and nutrients intake were determined using a self administrated questionnaire, a Three day diet diary (3DD) and a food frequency questionnaire (FFQ). A physical activity recall was used to determine the physical activity level of the adolescent girls. Validation of the FFQ was done using 3DD. The mean daily intake of energy 1296.6 Kcal/day, Carbohydrate 223.2 g/day, Protein 29.0 g/day and Fat 37.9 g/day were significantly ($p=0.001$) lower than the RDA values. The micronutrients intake specially, Calcium - 217.9 mg/day, Iron - 7.4 mg/day, Folate - 54.0 $\mu\text{g/day}$, Vitamin A - 146.5 $\mu\text{g/day}$ were not up to the level of recommended dietary allowances. Skipping of major meals, food taboos, food allergies were significantly associated with the dietary intake of the study sample. And all adolescents ($n=223$) had a sedentary life style behavior. The developed FFQ was reliable for assessing Folate intake ($p=0.034$). However, the strength of the correlation was weak ($r=0.388$). Except Thiamin and vitamin C intake, other micronutrients intakes of the study sample were significantly lower than the RDA levels.

Key words: Adolescents, Recommended dietary allowances, Macro and micro nutrients, Dietary patterns, Physical activity level.