

Proper nutrition implies receiving adequate foods and to convey the nutrients required for optimal growth and development of individuals. In boarding institutions, meals must cover all the students' requirements for nutrients in order to sustain a vigorous and healthy life. In situations where no regulator mechanisms exist to ensure adherence to minimum dietary requirements are met as it is in the Kenyan boarding learning institutions, the risk of inadequate intakes is high. This is especially so among adolescent girls whose dietary requirements are markedly increased. The purpose of this study was therefore to assess the dietary practices of girls in boarding schools in Nairobi and to determine the adequacy of meals in their schools.

A descriptive cross-sectional survey was used in the study. Data were collected using self-administered questionnaires for students and interview schedules for headmistresses and cateresses. A bathroom scale and a height board were used to collect anthropometric data. A combination of probability and non-probability sampling procedures were used. Descriptive statistics (frequencies, percentages and means) and inferential statistics (ANOVA, chi-square and t-tests) were used to summarize data and to test for differences between groups respectively. All schools sampled provided at least 3 meals a day, that is breakfast, lunch and supper. Mid-morning and afternoon tea/coffee were provided in only two schools.

Except for energy the school meals did not meet the Recommended Dietary Allowances (RDA) for protein (44g), calcium (650mg), iron (15mg) and vitamin A (800ugRE). The most deficient nutrient in the school meals provided was calcium. The major factor considered in the planning of meals is the amount of money available. A majority (78%) of the students generally had negative attitudes towards school meals. The reasons for this included poor preparation and cooking of school meals, limited variety, and flavour. Snacking was common with as many as 76% of the students engaging in it. Biscuits were the most consumed snack. A majority of the students snacked to satisfy hunger, implying that school meals were inadequate in quantity. Students' suggestion for improvement of school meals included increased meal portions, a widening of meal item varieties and improvement of flavour. The nutritional status of the students based on the Body Mass Index (BMI) indicated that majority (65%) of the students were well nourished as they fell within the optimum range (18.5-25.0). Three per cent of the students were severely underweight while 4% were obese. Significant differences were observed between energy ( $\chi^2 = 271.339$ ), calcium ( $\chi^2 = 745.675$ ) and vitamin A ( $\chi^2 = 384.867$ ) provided in the school meals and the RDA at  $p < 0.05$ . Apart from energy, there was no significant differences among the school meals provided for protein ( $\chi^2 = 1.890$ ) calcium ( $\chi^2=5.496$ ), iron ( $\chi^2=0.925$ ) at  $p > 0.05$ . The hypothesis that there is no significant difference in attitudes towards school meals among students in different forms was accepted while the hypothesis that there is no significant difference in attitudes towards school meals among students was rejected.

The study concluded that school meals in girls' boarding schools in Nairobi are inadequate in quantities of nutrients provided in relation to RDA for protein, calcium, iron and vitamin A. The study recommends nutritional education for meal planners in boarding institutions and the formation of a regulatory body to ensure adherence to the minimum dietary requirements of students. Further research in similar institutions in different set-ups should be done.