NUTRITIONAL STATUS AND FOOD HABITS OF ADOLESCENTS IN PUBLIC AND PRIVATE BOARDING SECONDARY SCHOOLS IN HOIMA DISTRICT.

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Abstract

Background: Good nutrition is essential during adolescence as it supports the increased growth spurt that characterized puberty and teen years. Adolescence nutritional problems are common in the developing countries and throughout the world. Food intake in boarding secondary schools in Hoima district is based on three main meals daily. The meals in boarding schools are based on traditional staple foods; in addition students consume some modern foods alongside the main meals served. The health and nutrition of adolescents is important as their eating behavior and nutrition will affect their future health. However this is no data on nutritional status and food habits of adolescents in secondary schools.

Objective: To compare and describe the nutritional status and food habits of adolescents in public and private boarding secondary schools in Hoima district.

Methods: A cross-sectional study using an unquantified food frequency questionnaire and anthropometric data, in public and private boarding secondary schools in Hoima district. Four hundred and four adolescents, 13-19 years old, were selected randomly from thirteen boarding secondary schools. Enrolment of the study subjects from each school was based on proportional probability sampling.

Results: Frequencies of consumption of fruits and meats/eggs/fish were significantly higher in adolescents attending public schools than in private schools (4.6 vs. 4.1, 2.4 vs. 2.1 respectively). In contrast frequency of consumption of vegetables/green leaves was significantly higher in adolescents in private than public schools (2.1 vs. 1.6 respectively).Frequency of consumption of junk foods was higher in private than public school adolescents (9.3 vs. 8.6 respectively), although not significant. In contrast the frequency of consumption of cereals was higher in adolescents in public than private schools (11.4 vs. 10.8 respectively), although not significant.

Likewise the number of in-between meal was higher in private than in public school adolescents (1.8 vs. 1.7 respectively), although not significant. There was high prevalence of snacking before supper in private schools than in public schools (36% vs. 30% respectively), although not significant. Similarly the same pattern of snacking after supper was observed in private and public schools (23% vs. 16% respectively), although not significant. In addition, there was high prevalence of skipping supper in private than in public schools (5 %vs. 2.5% respectively), although not significant. A significantly higher proportion of adolescents in private schools eat delicacies on week-end than in public schools (34% vs. 24%). BMI (kg/m^2), body fat mass (kg), body lean mass (kg), MUAC (cm) were significantly higher in adolescents in public than in private schools adolescents (21.01 vs. 20.3 and 22.97 vs. 21.99 and 30.74 vs. 29.53 and 25.02 vs. 24.26, respectively). Arm muscle area (AMA, mm2) and Total skin fold thickness (mm) were higher in public than in adolescent in private schools, although not significant (3803.3vs 3674.2 and 35.0 vs. 33.7, respectively). In contrast waist/hip ratio was higher in private than in public school adolescents, although not significant (0.81vs 0.79, respectively). The prevalence of stunting and thinness was higher in private schools than public schools, though not significant (16%vs 8.3% and 2%vs 1.5%). In contrast the prevalence of overweight was higher in public than in private schools, though not significant (10%vs 5.1%). The prevalence of obesity was at less 1% in both private and public schools.

There was high prevalence of stunting, thinness, and overweight among adolescents in boarding schools (12.4%,2% and 8% respectively). Likewise the prevalence of stunting was markedly high in boys than girls (17.2%vs 8.3%, $p<0.05$). In contrast the prevalence of overweight was markedly high in girls than in boys (13.8%vs 0.5%,$p<0.05$).

Conclusion: Consumption of essential foods like fruits, milk, vegetables and meat is poor in both private and public schools. The prevalence of under nutrition was more in private schools; in contrast the prevalence of over-nutrition was more in public schools. In addition both under nutrition and over-nutrition co-existed in adolescents at school. Nutritional education and Continuous studying of adolescents' food habits and nutritional status should be continued in order to improve the food habits and nutritional status of adolescents at school as well as to inform policy. Likewise school managers should ensure availability of essential foods in canteen as well as provide extra nutrient rich meal at break time and evening time after class.

Key words: Adolescents; nutritional status; food habits; Hoima; food frequency; anthropometry.