

## Abstract

Contribution of nutritional knowledge, diet and physical activity to the nutritional status of adolescents in high schools

Rena V. Brown

The contribution of nutritional knowledge, diet and exercise to the nutritional status of adolescents 15-17 years old enrolled in high schools and the socio-demographic factors associated with Body Mass Index (BMI) were investigated in this study.

This cross-sectional survey was conducted in four secondary schools in Kingston and St. Andrew. A total 372 subjects were enrolled in the study. The sample consisted of 165 (44.5 %) males and 207 (55.5 %) females. The mean age of boys ( $15.5 \pm 0.9$ ) and girls ( $15.6 \pm 0.9$ ) was similar.

Both under- and over-nutrition were of public health significance. Eleven percent of the adolescents were underweight (BMI < the 5<sup>th</sup> percentile) (9.7 % boys, 11.2% girls); 11.4 % were overweight (6.1% boys; 15.6% girls) while a further 6.8 % boys and girls were obese.

Girls were more knowledgeable about obesity and the factors associated with this condition, but were less physically active than boys. Girls recognized the need for exercise but over one half of them reported that they did little (31.4% did less than

one hour) or no exercise (27%). Eighteen percent of children (21 % girls, 16 % boys) reported in excess of 15 hours of sitting activities per week. Females were more at risk of higher BMI's than males. However, only boys' height and age (being older) and girls' perception of body weight were significantly associated with BMI.

Children's food consumption patterns over the previous 7 days revealed that with the exception of fruits, vegetables, candies, ice-cream and pickled fish, eating patterns were similar among boys and girls; however, 64% of the children (primarily girls) reported undesirable behaviours of skipping breakfast.

**Conclusion:** Under- and over-nutrition are present in adolescent children in Jamaica, which warrants preventive and rehabilitative intervention programs.

**Key words:** obesity, overweight, underweight, normal weight, nutritional knowledge, diet, exercise, adolescents, body mass index.