Health Education

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Children’s eating habits: a question of balance

Observations made in Antigua indicate that children consume significant amounts of food between main meals. Some of the constituents of snacks are nutritionally valuable but much of this intake is undesirable and could be laying the foundations of ill-health. Continuing efforts in the field of education on nutrition are clearly necessary for both the children and their parents.

Although the incidence of undernutrition in the Caribbean region has been reduced, protein-energy malnutrition remains a problem. The management of malnutrition at hospital level has been unsatisfactory, and attention is now being concentrated on primary health care. Much of the responsibility for maintaining and improving nutritional status has been transferred from major health institutions to communities and community health centres (1).

Any programme designed for community action has to address certain basic needs and concerns. It has to identify groups that are vulnerable and establish why they are so. Targeted interventions have to follow, and their impact has to be evaluated (2).

In Antigua a lack of health resources is matched by a scarcity of educational opportunities and adequate housing (3). Considerable efforts have been made to educate parents on the nutrition of children, but difficulties arise because of religious and social attitudes towards certain foods, a lack of parental responsibility, a high birth rate, and a lack of knowledge about what constitutes a good diet.

In addition to being a responsibility of Antigua’s Health Education Unit and Public Health Services, education on nutrition is conducted on a limited scale by the Departments of Agriculture, Community Development, and Education. Most teaching on foods and nutrition is done during home economics courses in schools.

A pilot project on the teaching of nutrition was recently conducted in selected
elementary and secondary schools with the help of the Caribbean Food and Nutrition Institute. This body’s primary functions are to furnish technical assistance and training services in the Caribbean area and to conduct research with the aim of improving nutritional status through educational programmes.

**Malnutrition and obesity**

Malnutrition is present in 5–7% of Antiguan children, while 15% of adolescents aged 17–19 are obese and consequently at risk of diabetes, hypertension and stroke later in life. Fruit and vegetables are costly in Antigua, and the food products imported from the USA largely consist of fast foods with a high content of fat, refined sugar and additives. There is an inadequate intake of roots, tubers and complex carbohydrates, and an excessive consumption of fats and simple sugars.

**Eating between meals**

Observations made on school premises indicated that children were able to obtain lollipops, chocolate bars, gum, and many other items of low nutritional value. It was decided to conduct a pilot study on the extent, nature and quality of snacking among children, and to investigate their consumption of nonbasic foods, regardless of when they were eaten.

Data were obtained from 20 children aged 9–11 years who had been asked to keep a note of everything they ate, including snacks, during the course of a day. Any food consumed between meals or after the evening meal was classified as between-meal eating or snacking. Nonbasic foods were defined as any food or drink not belonging to one of the six basic food groups for the Caribbean; they included sugar, soft drinks, sweetened biscuits and cakes, pies, pastries, crisps and other snacks.

All the children in the study ate snacks between meals. The habit was just as prevalent between lunch and supper as it was during the evening, but only 60% of the children ate between breakfast and lunch. Snacks taken in the afternoon contributed 41% of the total energy obtained by eating between meals, as did those consumed during the evening, while only 8% came from morning snacks.

The principal foods consumed between meals, in order of decreasing frequency, were: soft drinks; fresh fruit and unsweetened fruit juices; sweets and chocolates; sugar (mainly used in beverages); and baked products (crisps, biscuits and cake).

If carefully chosen, snacks can enhance the nutritional value of a child’s diet.

Other foods used on occasions were sweetened fruit juices and corn-based snacks. Eating between meals supplied slightly more than a third of daily energy intake, almost half the carbohydrate intake and nearly two-thirds of the added sugar intake. Daily sugar consumption averaged 61 grams and ranged from 8 to 101 grams, representing 20% of the average energy intake; only approximately a third of this intake was consumed with meals.

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As in the present study, previous investigations have shown that the taking of snacks in the afternoon and evenings is
more frequent and more substantial than morning snacking (4, 5). Soft drinks, fruit, sweets, chocolates and baked products feature overwhelmingly in most studies on eating between meals among children. The foods eaten are high in added sugar and total carbohydrate. Fruits and fruit juices, however, provide a valuable supply of vitamin C and fibre.

Parents should be encouraged to learn about the planning of nutritious meals and to help children establish sound eating habits.

If carefully chosen, snacks can enhance the nutritional value of a child’s diet (6). On the other hand, weight problems can arise in growing children, and dental caries may develop. Since it seems inevitable that non-nutritious foods will be eaten, regulation of the quantity consumed may be desirable.

Sugar intake was high both between and during main meals. Parents should be encouraged to learn about the planning of nutritious meals and to help children establish sound eating habits. Unsweetened fruit juices, fresh fruits, and bread and other baked items made with whole grains are desirable constituents of snacks. Research should continue in different environments, and a database on food composition should be developed. Schools should be supplied with adequate materials for the teaching of nutrition. A comparative study would be useful between schools participating in the pilot nutrition programme of the Caribbean Food and Nutrition Institute and nonparticipating schools, with a view to assessing whether teaching is appropriate and whether the outcome is beneficial for Antigua. If this proves to be the case, funding should be sought to implement the programme throughout the Antiguan school system.

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References