The Scientific Newsletter

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"CLOSE ENVIRONNEMENT IMPACT ON F&V CONSUMPTION"

Editorial

Why do so few people eat healthy diets?

Most people do not meet national dietary guidelines. A UK national survey in 2001 showed how many people met each nutrition target but left out a crucial piece of information: how many met all the targets at once - i.e. ate a healthy diet? The answer was barely one percent.

Despite repeated surveys, researchers and policy-makers struggle to find the answers. Does income really matter? Is education more important? Or local food supplies - 'food deserts'? Would extra cash make a difference?

The traditional approach sees individual behaviour as the problem and seeks to change it. But behaviour change depends on a sequence of changes: changes in information, of attitudes, in motivation, changes in skills and resources, access and availability, changes in social norms and cultural expectations. Purchases are strongly influenced by what is available, by price, by past experience and by marketing messages.

New research described in this Newsletter throws further light on what infuences behaviour. Parents, even on low incomes, know the basics of healthy eating but not always the detail. A TV in the bedroom undermines healthy eating patterns. Family meals help, but not a lot.

These findings show the complexity of dietary behaviour. Interventions which tackle only part of the problem will probably fail. Real change - at the level of agricultural policy, prices and marketing - is needed if we really want to help all people meet the healthy targets.

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Relationships between frequency of family meals and nutritional aspects of the home food environment among adolescents

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Background

Accessibility of healthy and unhealthy foods at home, parental modelling of healthy eating, family eating patterns and work demands all influence the eating practices of children and families. Family meals are one aspect of the home environment associated with the overall well-being of adolescents. Adolescents who eat meals with their families eat more fruits and vegetables, drink fewer soft drinks, are more likely to eat breakfast, and have better nutrition profiles, especially for calcium and saturated fat. Furthermore, regular consumption of family meals during adolescence is associated with better dietary practices during young adulthood. The objective of this research was to examine the relationships between consumption of family meals and other aspects of the home food environment and nutrition behaviors that may influence adolescent nutrition among a large, diverse population of adolescents.

the Pacific Obesity Prevention In Communities study

Data were collected during the baseline measurements for the Pacific Obesity Prevention In Communities (OPIC) study: a muti-site intervention aiming to reduce overweight/obesity among predominately Pacific adolescents. Data for the current study were collected at the New-Zealand site; study participants were drawn from six high schools in a geographically defined, economically disadvantaged area during the 2005 school year.

All students attending the school during the days of data collection were invited to answer a questionnaire about their eating and activity behaviours. In total, 3245 students agreed to participate (response rate 62%). Final analyses were conducted with the 3119 students who had complete survey data about nutrition and physical activity patterns and physical measurements. Parents of students under age 16 and students aged 16 years and older consented to participation. The University of Auckland Human Participants Ethics Committee granted ethical approval for the study.

The importance of family meals...

In total, 42% of students had a meal with their family on all of the past five school nights. Frequency of family meals was positively associated with many of the more healthful aspects of the home food environment. Adolescents that reported having family meals everyday were significantly more likely to perceive a lot of parental support for healthy eating, have limits on their television use, and have fruit available in their home every day. Frequency of family meals was also positively associated with eating five fruits and vegetables a day, eating fruit as an afternoon snack, bringing lunch from home, and eating breakfast at home before school (all $p<0.001$). Furthermore, in many cases, the strength of the associations increased with the frequency of eating family meals.

Of interest, frequency of family meals was not associated with the home availability of less healthy snack foods (chips, chocolates, and soft drinks) or with the less healthy dietary behaviors (soft drink consumption, fast food consumption, fried foods for afternoon snacks, or chocolates for afternoon snacks). Adolescents who ate family meals everyday were as likely to have less healthy snack foods at home most days and consume them compared with those who did not eat family meals.

... to improve adolescent eating habits

Our findings suggest that there are a number of positive aspects of the home food environment associated with family meals that may be potential mechanisms for the positive associations between family meals and improved adolescent nutrition. Interventions to promote family meals should recognise the issues that prevent families from eating together and acknowledge other aspects of the home food environment promoting healthy eating. Perhaps the most salient implication is that interventions with families need to address the availability and consumption of unhealthy snack foods at home.

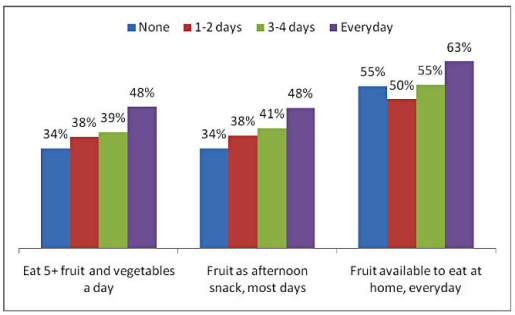

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Figure.
Prevalence of fruit/ vegetable indicators by frequency of family meals during past school week

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What maternal factors influence the diet of two year old children living in deprived areas: a cross-sectional survey

— Iain K. Crombie —

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Background

The increasing prevalence of obesity and diabetes in children and adolescents is a major public health problem. Current dietary problems include the regular consumption of snacks, sweets, soft drinks, and fatty foods while consumption of fruit and vegetables (F&V) is lower than recommended. As socially disadvantaged groups are at particular risk of having poor diet, we investigated the factors that influence the food choices made by mothers of young children who live in areas of high deprivation.

Interviewing mothers

The study was conducted with mothers of two year old children living in areas of high deprivation in Dundee city and Fife, Scotland. The mothers were interviewed in their own homes. The study investigated the role of family characteristics; health knowledge and beliefs, and patterns of food purchasing, cooking and serving, in determining diet among disadvantaged children. The study also investigated what predicted mothers' intentions and behaviour in providing breakfast, cooking with raw ingredients, and eating a meal together as a family.

Family characteristics

A very high response rate (81%) was achieved. Most families lived in council housing (81%), 43% of mothers reported that no other adult lived in the home and 91% were not employed. Only 22% of children had ever been breastfed and 60% of mothers were current smokers.

Children's diet

The quality of the children's diet was mixed. All children had dairy products daily and nearly all had a portion of a protein-rich food every day. However, most (91%) ate processed meat two or more times a week. Only 12% of children met the recommended five portions of (F&V) daily, with 47% eating one or more portions of vegetables per day. Only two children ate fish every week.
Children were allocated a composite dietary score based on whether or not their diet was balanced on the four main food groups (bread, other cereals and potatoes; (F&V); meat, fish and alternatives; milk and dairy foods) and limited high sugar and/or high fatty foods. Based on current guidelines, most (85%) of the children were classified as having a poor quality diet.

Factors associated with a poor diet

Univariate analysis showed that many types of factors were significantly associated with poor diet. These included:

- low levels of knowledge of specific dietary recommendations,
- seldom cooking with raw ingredients,
- a busy lifestyle,
- reluctance to change current diet,
- concern that the child did not eat enough,
- belief that it was difficult to provide 2-3 portions of fruit,
- mothers reporting that they were unlikely to restrict sweets.

Factors which decreased the risk of a poor diet included:

- providing breakfast every day,
- eating together regularly as a family,
- believing that a healthy diet would help the child to eat more.

Several factors were not associated with the children's diet. Mothers' general knowledge about healthy eating was high, and did not predict the quality of the children's diet. Measures of food availability, cooking skills, knowledge of a healthy diet, and beliefs about the health benefits of a healthy diet were also unrelated to the children's diet.

Predicting diet quality

Regression modelling identified five factors which exerted independent, statistically significant effects. An increased risk of a poor diet was associated with mothers reporting that they were unlikely to restrict sweets (OR=21.6, p<0.0001), or that they found it difficult to provide 2-3 portions of fruit (OR=2.9, p=0.005). Concern that the child who did not eat enough had a higher risk of a poor diet (OR=2.4, p=0.03). Believing that a healthy diet would help the child to eat more reduced the risk of having a poor diet (OR=0.3, p=0.04), as did providing breakfast every day (OR=0.2, p=0.02).

Implications for pratice and policy

The study has important implications for practice and policy for children living in disadvantaged areas. Mothers' intentions about preparing and serving meals and perceived control over the child's diet are the most powerful predictors of diet quality. To improve children's diet, efforts should be made to promote more positive intentions to the preparation and serving of food (breakfast every day, cooking from raw ingredients, eating together). The benefits of these behaviours to the mother (enjoyment) and the child (improved diet, weight control) should be emphasised. Mothers could be encouraged to plan specific meals at which the family eats together. The impact on a child's weight from the regular consumption of high fat/ high sugar snacks and take-away meals could also be stressed. General education about foodstuffs and the health benefits of a good diet are unlikely to improve children's diet.

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Characteristics associated with older adolescents who have a television in their bedrooms

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Adolescents spend a lot of time watching television[1] and heavy TV use has been associated with negative behavior and physical outcomes, such as poor school performance[2], poor dietary habits with low consumption of fruit and vegetable (F&V),[3]high fat intake[4], and greater BMI[5]. The objective of the authors was to study, in adolescents, relationships between having a television in their bedroom and personal, social and behavioral characteristics[6].

Project Eating Among Teens (EAT) II

This project is a follow-up of Project EAT-I with the purpose to examine determinants of dietary intake and weight status of adolescents in Minnesota. For the current analyses, 781 adolescents were included (54.7% of girls) with a mean age of 17.2 +/- 0.62 years.

Adolescents completed several questionnaires and reported:

- the presence of a TV in their bedroom,
- their physical activity,
- their sedentary behaviors : time spent watching TV, reading and doing homework, using a computer,
- their eating behaviors: F&V, sweetened beverage, fast food intakes; number of family meals; and snacking while watching TV,
- other personal factors: age, socio-economic status (SES), body mass index (BMI), grade point average, family connectiveness and depressive symptoms.

Having a bedroom TV is associated with unhealthy behaviors

- 62% of participants had a TV in their bedroom and the presence of a TV bedroom was more prevalent among boys, low SES households and black youths. The presence of a bedroom TV was less prevalent in Asian youths.
- Having a bedroom TV was strongly associated with time spent watching TV. Compared to girls without bedroom TV, girls with a TV in their bedroom:
- had lower physical activity,
- spent more time watching TV,
- reported lower vegetable consumption,
- reported higher sweetened beverage intake,
- had fewer family meals.

Compared to boys without bedroom TV, boys with a TV in their bedroom:

- spent more time watching TV,
- reported lower fruit consumption,
- had fewer family meals,
- reported lower grade point average.

Having a bedroom TV was not associated with the prevalence of snacking while watching TV as well as BMI.

Can we prevent poor dietary behaviors by reducing TV in adolescents' bedroom?

The authors observed that adolescents with a TV in their bedroom reported poor dietary habits (low F&V consumption, high sweetened beverage intake, less family meals) and low physical activity (which is associated with more time watching TV). However, they did not find any association with BMI status (which could be explained by bias in reported weight).
As having a TV in the bedroom is associated with unhealthy behaviors in adolescents, and as adolescents' behaviors are determinants of future adult behaviors, prevention by reducing bedroom TV could reduce unhealthy behaviors as well as health consequences in adulthood. Further investigations need to study long-term effect of reducing TV behavior.

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