The Scientific Newsletter

N° 26 • September 2008

PARENTAL ROLE IN CHILDREN'S DIETS

Editorial

Currently, preventing childhood obesity is geared to putting a stop to the intense, unethical drive to commercialise many aspects of children's lives. Child labour used to be common in Europe and sadly still is in the developing world, but essentially society has always focused on the need to protect children. Those who still believe in the discredited economic system of an unfettered free market model emphasise the role of parental responsibility, but what can parents do to cope with the current "obesogenic" or "toxic" environment?

Parents can play a key role in ensuring their child's wellbeing. Pre-pregnancy nutrition is now considered to influence fetal growth: adequate intakes of fruit, vegetables and essential fats, with modest intakes of animal protein, not only limit congenital defects but affect the child's long term health. Mothers on a good diet and who breast feed influence the baby's food preferences; weaning onto fruit and vegetables establishes long term taste preferences.

The pre-school period is crucial and parents can ensure they establish a Mediterranean food system at home. Avoid "food choices" because children are better on a fixed high quality diet until their mid teen-age years. Nurseries should be regulated to provide high quality foods and active play.

Parents can also influence the school arrangements for food and nutrition education, promoting the development of parental contracts which prohibit in-school confectionary, soft drinks or "junk" food. They can also promote local community schemes which use the Finnish model of including vegetables and a salad bar within the cost of main meals at local restaurants/ canteens. So parents still have an influential role!

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EUROPEAN COMMISSION INVITES SUBMISSION OF POSTERS FOR FORTHCOMING CONFERENCE ON SCHOOL FRUIT SCHEME

On 8 July 2008, the European Commission presented its proposal for the introduction of an EU-wide School Fruit Scheme (SFS). In order to kick-start the linked networking activities, the Commission is now organising a major conference, bringing together experts from all Member states. This event will take place in Brussels in December 2008. As part of this conference there will be a poster exhibition of best practice models to provide SFS project promoters and stakeholders with examples for establishing or improving a School Fruit Scheme. Interested parties are now invited to submit models as posters for this exhibition. These posters must be designed to deliver 'operational' information in an easily understandable way. The posters will be exhibited during the conference and published on the Europa website.

Full details on how to submit best practice models can be found at :
http://ec.europa.eu/agriculture/markets/fruitveg/sfs/events/conference/index_en.htm

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Are positive changes in potential determinants associated with increased fruit and vegetable intakes among primary schoolchildren? Results of two intervention studies in the Netherlands: the Schoolgruiten Project and the Pro Children Study

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Ample intake of fruit and vegetables (F&V) is part of dietary recommendations in many countries. However, among schoolchildren across Europe, the reported intake of F&V is lower than recommended[1].

According to health behaviour change theories such as the Social Cognitive Theory and[2] the Theory of Planned Behaviour[3], increasing F&V intake can be induced by changes in presumed behavioural determinants (attitude, social influence, self-efficacy or behavioural control[4,5, etc.]). Studies on determinants of F&V intake among children have shown that taste preference, availability, parental intake levels, and knowledge of recommended intake levels are of additional potential importance[6-9]. However, the majority of these studies applied cross-sectional designs, which does not allow concluding upon causal relationships between potential determinants and F&V intake. It may well be that changes in F&V intake precede changes in presumed determinants. For instance, increased exposure to F&V can influence taste preferences[10-12]. Longitudinal studies are required to better understand the relationships between potential important determinants of F&V intake and F&V intake among children.

Data from the Dutch part of the Pro Children Study and the Dutch Schoolgruiten Project provide the opportunity to study changes in F&V intake frequency and potential determinants measured at three different time points (Figure 1).

The aim of this study was to investigate whether positive changes in or maintaining high scores on the presumed important determinants of F&V intake in the first time lapse (period between baseline and first follow-up) were associated with positive changes or maintenance of favourable levels in F&V intake frequency in the same time lapse (association A in Figure 1) and with positive changes or maintenance of favourable levels in F&V intake frequency later in time (association B in Figure 1). Further, we examined whether positive changes or maintenance of favourable levels in frequency of F&V intake were associated with positive changes in or maintenance of high scores on the variables that were identified as potentially important determinants of F&V intakes in earlier studies, later in time (association C in Figure 1).

METHODS

This study had a design with a baseline measurement and two follow-up measurements. We only included children from the intervention schools, since these children are more likely to show changes in potential determinants of F&V intake, as a consequence of the intervention activities[13,14]. The data was used as observational longitudinal cohort data.

Finally, 344 children of the Dutch Schoolgruiten Project (mean age 10.0 years at baseline) and 258 children of the Pro Children Study (mean age of 10.7 years at baseline) completed questionnaires, including questions on general demographics, usual F&V intake frequency, important potential determinants of F&V intake, such as taste preferences of F&V, availability of F&V, knowledge of recommended intake levels of F&V, self-efficacy for eating F&V, and parental influences for eating F&V. The three different associations between changes in determinants of F&V intake and changes in F&V intake frequency were assessed by regression analyses, adjusted for gender, child's age, educational level of the parents, ethnicity, and region of residence (only for the Schoolgruiten study).

RESULTS

Relation A - The children who increased or maintained a relatively high frequency of fruit or vegetables intake in the first time lapse were more likely to have increased the following determinants in the same time lapse: liking for both F&V, parental active encouragement to eat F&V, the family rule demanding the child to eat F&V, increased their perceptions of availability at home for fruit, general self-efficacy for eating fruit, modelling behaviour by friends and parents for eating vegetables and parental facilitation of vegetables.

Relation B - The children who increased or maintained a relatively high frequency of fruit or vegetables intake later in time were more likely to have increased the following determinants in the previous time lapse. Liking of fruit, parental facilitation of vegetables, family rules of eating vegetables (demanding and allowing) and availability at home of vegetables.

Relation C - Associations were found between increased or stable high frequency of fruit or vegetable intake in the first time lapse and the following determinants later in time. Increased or maintenance of high scores on liking of both F&V intake and increased or maintenance of high scores of knowledge of recommended intake levels of fruit consumption.

CONCLUSION

This study showed that determinants of F&V intake that appear to be important to induce behaviour change were liking of F&V, facilitation by the parents of F&V, family rules for eating F&V and availability at home of F&V. Furthermore, changes in F&V intake frequency also induced changes in liking of F&V and knowledge of recommended intake levels of fruit. These findings are in accordance with behaviour change theories and support newly proposed theories proposing direct and indirect associations between determinants and behaviour. In addition, the study provides some evidence that behaviour change (increased intake or maintenance of favourable levels of F&V frequency) was preceded by changes in or maintenance of high scores of (some) presumed determinants of F&V intakes, both in the Pro Children Study and in the Schoolgruiten Project. In conclusion, it is important to tailor future interventions aimed at increasing F&V intakes to include these determinants.

Based on: Tak et al. IJBNPA 2008, 5, 21

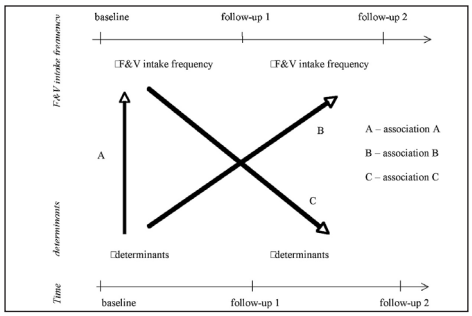

Figure 1:
Design of the study with the three assessed associations between changes in important determinants and changes in F&V intakes frequency

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The role of parental control practices in children's BMI and diet

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Parental control and a child's diet

To understand the increase in childhood obesity, researchers have turned their attention to the child's home environment and have highlighted the role of parental feeding practices. Central to this research has been the issue of parental control and the effectiveness of different approaches at controlling or managing a child's diet, which is pertinent given the current availability of fast foods and unhealthy snacks. Some research has addressed the impact of control although studies have produced contradictory results. For example, Birch and colleagues have carried out a number of studies exploring the impact of control and have developed the Child Feeding Questionnaire which operationalizes control in terms of monitoring, restriction, and pressure to eat (CFQ)[1]. Birch[(2)] reviewed the evidence for the impact of imposing parental control and concluded from her review that "child feeding strategies that restrict children's access to snack foods actually make the restricted foods more attractive". In contrast, however, some studies suggest that parental control may actually reduce weight and improve eating behaviour. For example, Wardle and colleagues developed the Parental Feeding Style Questionnaire (PFSQ)[3] which operationalizes control in terms of restriction with items such as "I control how many snacks my child should have". Using this measure, Wardle et al[(3)] suggested that "lack of control of food intake [rather than higher control] might contribute to the emergence of differences in weight". Similarly, Brown and Ogden[(4)] reported that greater parental control was associated with higher intakes of healthy snack foods. Ogden et al[(5)] argued that these contradictory results may reflect the contradictory nature of parental control with some forms of control having beneficial effects while others may be detrimental. To explore this possibility, Ogden et al[(5)] examined the effect of differentiating between 'overt control' which can be detected by the child (eg. being firm about how much your child should eat) and 'covert control' which cannot be detected by the child (eg. not buying unhealthy foods and bringing them into the house). This study developed a new measure of covert and overt control and showed that these different forms of control did differently predict snack food intake and, while higher covert control was related to decreased intake of unhealthy snacks, higher overt control predicted an increased intake of healthy snacks.

Overt versus covert control

A recent study by Brown, Ogden, Vogele and Gibson,[(6)] aimed to further explore the role of parental control on both children's BMI and their diets. Parental control practices were examined with a focus on overt and covert control and pressure to eat on a child's eating patterns. In particular, the study explored the impact of these practices on a range of dietary behaviours including snack food consumption, the intake of fruit and vegetables, and neophobia, which can be a barrier to healthy eating as well as the child's BMI. The study involved a cross sectional survey of 518 parents with children aged 4-7 years and was carried out in 18 primary schools across the South of England.

Differential effects of overt and covert control on children's eating

The results from Brown et al[(6)] showed that the most commonly used control practices were overt control (that can be detected by the child) over both meals and snacks and covert control (that cannot be detected) over meals, which were used by a large majority of the parents. In terms of the impact of these different parental control practices, the results showed no relationship between any of the control practices and the child's BMI. However, associations between parental control practices and aspects of the child's diet were found. In particular, eating more unhealthy snacks was related to less covert control and more pressure to eat, eating fruit and vegetables was related to higher levels of both overt and covert control over meals and less pressure to eat, and being neophobic was related to less covert control over meals and more pressure to eat. Ogden et al[(5)] suggested that previous contradictory findings may reflect the complex nature of parental control with some controlling strategies promoting healthier behaviours than other strategies. The results from Brown et al (2007) support this analysis. In particular, 'pressure to eat' involves a very direct version of control such as trying to encourage a child to eat even when they say they are not hungry. Such an approach may be associated with less healthy behaviour and may even have a detrimental impact upon food choice. In contrast, covert control is a much more subtle and less direct approach to managing a child's diet and involves avoiding unhealthy restaurants or not bringing unhealthy foods into the house. Such an approach may be associated with more healthy eating. Research exploring other forms of control indicate that trying not to do something or trying not to think about something can paradoxically make that behaviour or thought more likely to occur[(7)]. The results from Brown et al[(6)] suggest that direct forms of control such as pressure to eat may result in this paradoxical effect, whereas more subtle forms of control such as covert control may not.

To conclude, the results showed that parental control practices are widespread and, whereas covert control was associated with a healthier diet, 'pressure to eat' was related to less healthy behaviour. Parents may believe that controlling their child's diet is necessary given the current availability of fast food and unhealthy snacks. The results from this study indicated that some of these controlling practices may be more beneficial than others.

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Parents Jury

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The Parents Jury – a grassroots approach to obesity prevention in Australia

In Australia, some non-government organisations (NGOs) have banded together to establish a very innovative program to address the prevention of obesity. The Parents Jury is a grass roots advocacy program where parents get to voice their opinions on the nutrition and physical activity environments that impact on their children, and collectively advocate for their improvement.

Unlike many health programs which focus on individual education and health promotion, the Parents Jury focuses on "upstream" issues to influence policy and environmental issues which impact the increasingly predominant obesogenic environment in Australia. It is grass roots activism in action. For example, parents may vote in a web poll about the need for supermarkets to provide checkouts which are free of confectionery and unhealthy snack foods. The views of parents on this issue are packaged into a media release, and used to inform the large supermarket chains of parental support for a more supportive environment when they visit the supermarket.

The Parents Jury in action

The Parents Jury (www.parentsjury.org.au) was launched in August 2004 with just 12 members and now has over 3300 members across Australia. It is an online network which keeps operational costs down and also allows for speedy surveying and mobilisation of its parent members. The program is funded and supported by Cancer Council Australia, Diabetes Australia, Australia and New Zealand Obesity Society and VicHealth.

Parents Jury conducts its advocacy campaigns through a number of channels:

- Media advocacy
- Direct delegations and submissions to key decision makers (e.g. government bureaucrats, politicians, and the food industry) on behalf of its parent members
- Advocacy tools and resource kits available on the website for parents themselves to become grassroot champions

Parents Jury focuses on the following issues:

1. Creating healthy school food environments
2. Reducing the amount of food marketing to children including television advertising, food sponsorship and internet sites that promote junk foods
3. Improving physical activity environments for children including active transport to school, physical activity within school and access to after school sports
4. A reduction in the number of supermarket checkout counters displaying confectionery, snack foods and sweet drinks

A successful campaign targeting TV food ads

One of Parents Jury's most successful campaigns has been the annual Television Food Advertising Awards. Parents nominate awards for food advertisements under the following categories: Pester Power Award (a food ad that uses premiums or cartoon characters to encourage children to pester their parents to buy the food); Smoke and Mirrors Award (a food ad that doesn't tell the full story e.g. claims about high vitamin content and no mention of the food's high sugar content); and the Parents Choice award for healthy television food advertisements.

Some past winners in the Parents Jury Television Food Advertising Awards have been Kellogg's Coco Pops for its advertising campaign which focuses on its vitamin and mineral content but fails to mention that it is high in sugar and low in fibre. McDonalds has won the pester power award for the last three years for its repeated advertising of McDonalds Happy Meals with the use of a toy premium. The Parents Choice Award has gone to government campaigns promoting fruit and vegetables, and high fibre cereals that use sport stars to promote healthier breakfast choices. The ad awards generate significant media coverage, which helps to raise awareness of the issue of food marketing targeted at children, as well as signal to key decision makers the need for policy and regulatory action on this issue.

New categories for the food marketing awards have been introduced this year, which will highlight food marketing campaigns across a broad range of media such as television, in-store promotions, internet sites, advergames and viral marketing. Some of the new award categories are the School Food Bully Award to highlight inappropriate food marketing partnerships in schools, and the Techno Hack Award for an internet food marketing campaign.

Parents are offered media training so they can act as spokesperson in any media activity.

Parents Jury has an interactive website, where parents can find out about the latest campaigns and how to be involved. The website also contains a range of advocacy tool kits so that parents can be grass roots champions in their own communities. These tool kits contain sample letters so that parents can take action themselves. For example parents can write to their school principal recommending they introduce a healthy food policy for both the canteen and the wider school community.

For more information, visit www.parentsjury.org.au