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## Leading article

### Improving adolescent eating habits and prevention of child obesity: Are we neglecting the crucial role of parents?

(See paper by Giskes *et al.*, pages 69–75)

#### Nutrient intakes in adolescents

Adolescence is a time of rapid physical growth and development, and the enormous pubertal increases in height, weight, lean muscle mass, fat, organ size and bone density require large nutritional intakes. Both male and female adolescents require high energy intakes and large amounts of nutrients, particularly iron, calcium and zinc.

Unfortunately, Australian boys and girls consume nowhere near enough of these essential nutrients, as demonstrated by a reliable nutritional marker—the proportion that consumed less than 70% of the recommended dietary intake (RDI) for iron, calcium and zinc in the National Dietary Survey of School Children aged 10–15 years.<sup>1</sup> In that large, national nutrition study, approximately 10% of adolescent boys and 21% of adolescent girls received less than 70% of the RDI for iron; 35% and 47%, respectively, consumed less than 70% of the RDI for calcium; and 27% and 45%, respectively, consumed less than 70% of the RDI for zinc. Similarly, low nutrient intakes were reported by many of the children and adolescents in the National Nutrition Survey of 1995.<sup>2,3</sup> The lack of a more recent large, nationally representative dietary survey precludes any accurate or reliable judgement about whether or not these nutrient intakes have improved since 1985, but the current prevalence of child obesity<sup>4,5</sup> certainly suggests that Australian children and adolescents are not eating well enough to promote optimal growth and health.

#### Eating behaviours and perceptions of nutrition among adolescents

Low iron, calcium and zinc levels were identified and well-described in the classic 1981 paper about the food habits of adolescents by Truswell and Darnton-Hill,<sup>6</sup> as were the largely adolescent eating behaviours characterised by missing meals (particularly breakfast), snacking, consumption of fast foods, unconventional meals, start of alcohol consumption, consumption of soft drinks, likes and dislikes, high energy intakes and dieting. These major food habits are still relevant in explaining much of the poor nutritional intake of adolescents today, with the addition of more recent eating behaviours such as weight gain practices among boys,<sup>7</sup> disordered eating among both genders<sup>8,9</sup> and increasing rates of adolescent vegetarianism.<sup>10</sup>

The new study of Giskes, Patterson, Turrell and Newman published in this issue of the journal<sup>11</sup> addresses these adolescent eating issues and also asks some very important and timely research questions. The results of this very interesting study will help us to design new ways of encouraging healthier eating patterns among teenagers. Giskes and her colleagues used qualitative research techniques to elicit the health and nutrition perceptions of Brisbane adolescents and, not surprisingly, they identified a largely individualistic attitude towards health and nutri-

tion behaviours that has been found in previous studies of adolescents<sup>12,13</sup> and adults.<sup>14</sup> A very interesting point of focus of the Giskes *et al.* study is that like earlier studies, the adolescents in the Brisbane study also perceived health to be mainly related to their physical body, its functional capabilities, the absence of ill health and the absence of physical restriction despite many years of health educators presenting a more broadly defined image of health in school and community health education. The definition of health given by the adolescents encompassed the theme of being 'fit' but largely focused on 'not having an illness', 'not being physically restricted', 'not getting breathless' and the desire to avoid health services. This negative and individually focused definition is directly in contrast to the broader definition of health used since 1948 by the World Health Organization<sup>15</sup> where health is defined as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.

Similarly, rather than identifying the positive, health-promoting aspects of sound nutrition, the adolescents' perceptions of healthy eating were also largely dominated by a rather negative point of view. The adolescents identified what to avoid, 'good foods' and 'bad foods' and what nutrition was 'not' rather than identifying any benefits conferred by healthy eating. For example, the Brisbane adolescents perceived a balanced and moderate diet as 'limiting high-fat, high-sugar or "treat" foods; not skipping breakfast; not eating frozen, canned, packaged or dried food and avoiding "junk foods" '.

This negative perception of nutrition—citing what *not to do* for healthy eating, rather than identifying *what to do*, is in direct contrast to the health promotion principles of nutrition education and the positive language of the new dietary guidelines, which aim to 'encourage' children to 'enjoy' healthy eating.<sup>16</sup>

As health and nutrition educators, we obviously have a long way to go in helping adolescents understand the importance of maintaining and developing the overall physical, emotional, mental, social and spiritual aspects of their health as well as promoting more positively focused messages about the many benefits of healthy eating rather than the negative outcomes of unhealthy eating.

Focusing on the potential benefits of a healthy diet and lifestyle rather than risk factors for disease is likely to motivate adolescents to improve their health behaviours. For example, a recent research study found that Australian adolescents report having experienced many benefits from healthy eating, including improvements to their cognitive and physical performance, enhanced fitness and endurance, psychological benefits, feeling good physically and production of energy.<sup>12</sup> Similarly, adolescents in the study by Nowak and Crawford<sup>17</sup> attached a great deal of importance on the impact that food has on their current looks, weight, appearance and energy compared to the impor-

tance that they placed on the prevention of future illness. Promoting the short-term benefits of healthy eating and physical activity would thus appear to be a sound, evidence-based approach to improving the eating habits and health behaviours of children and adolescents.<sup>12,17</sup>

### Promoting healthy eating among adolescents via parents

What else do we currently know about the best way to motivate children and adolescents to eat healthy food? First, it is clear that the information-giving, nutrition knowledge approach, while still deemed to be very important,<sup>18</sup> is not 'the be all and end all' for promoting healthy eating behaviours in children and adolescents. We must not dispense with providing sound nutrition knowledge to children and adolescents, but we certainly must do much more than that in order to change their eating behaviours.

An obvious, but somewhat neglected area of research in this regard are the health, nutrition and obesity-related perceptions of parents and their important role in shaping the health and nutrition behaviours of their children and adolescents. Recent research suggests that parents are still considered by children and adolescents to be the gatekeepers of the family food supply and that parents act as important role models for children's eating behaviours.<sup>11-13,19</sup> Providing sound nutrition information for parents is therefore still a necessary and appropriate nutrition education activity, but parents need a lot more than nutrition knowledge in order to provide their children with nutritious food choices.

Health education theories suggest that if we want to encourage parents to deliver healthy foods to their children, then we must first examine and understand the parents' nutrition knowledge, beliefs and attitudes. Theoretical frameworks such as the Health Belief Model and the Theory of Planned Behaviour<sup>20,21</sup> posit that in order to promote healthy eating in the home, parents need to believe in the benefits of healthy food for their children and that these benefits outweigh any 'risks', 'costs' or barriers associated with providing healthy food, including such factors as financial costs, time costs, lack of convenience and any potential adverse effects such as family conflict, children's pestering or food wastage. In addition to developing positive health beliefs and attitudes towards healthy eating for children among parents, health education theories such as the Social Learning Theory<sup>22</sup> suggest that parents may need self-efficacy and food skill development in order to be able to buy, store and prepare healthy food for their children and adolescents. After the basic beliefs and food preparation skills are developed, parents may then need the parenting skills to be able to coax their children to eat the healthy foods and drinks presented to them. All of these varying skills are required by parents in order to encourage healthy eating behaviours among children and adolescents.

As well as examining parents' health knowledge, beliefs, attitudes and skill acquisition, health and nutrition educators should also conduct needs assessments to identify what parents require in order to feed their children healthy foods and prevent child obesity. With the exception of a few recent studies<sup>19,23,24</sup> and some anecdotal interviews with parents,<sup>25</sup> this important research focus appears to have been largely neglected in the Australian nutrition and child obesity research literature and it is clear that this paucity of data must be addressed in future. Having thoroughly

examined the food and nutrition perceptions, skills and needs of parents, researchers would then be able to use the outcomes to plan relevant, appropriate and evidence-based healthy eating activities and child obesity prevention programs.

In addition to the need for more research about parental knowledge, beliefs, attitudes and skills about food and nutrition, environmental interventions to combat the increasing effects of our obesogenic Western society are obviously required and long overdue. Interestingly, the recent study of Hardus *et al.*<sup>19</sup> found that many parents identified parental responsibility as a major cause of child obesity and they indicated that they would also clearly support government-driven child obesity prevention strategies such as the promotion of healthy eating on television, the provision of healthy food in schools, compulsory daily physical activity in schools and mass media campaigns about healthy eating. Fewer parents reported that they supported more coercive government interventions, such as banning food advertising during children's television programs, taxing high-fat foods or reducing the portion sizes of takeaway foods.

Clearly, parents play a crucial role in helping or hindering our public health efforts to foster healthy eating behaviours and obesity prevention among children and adolescents. As nutrition and health educators, we must include parents in our research into these important issues and we certainly cannot afford to leave parents out of the mix of key stakeholders, gatekeepers and program planners in the development of strategies for the prevention of child obesity.

**Jennifer A. O'Dea, BA, DipNutrDiet, MPH, PhD**  
Senior Lecturer in Nutrition and Health Education  
University of Sydney

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