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« CHILDREN'S HEALTH IN CANADA »

Editorial

Are Canadian children eating themselves to obesity?

While Canada is one of the world's most prosperous nations, the health of our children is dismal: Canadian school-aged youth are among the most obese in the world (27 out of 29 developed nations). It is known that six in ten obese children have at least one risk factor for cardiovascular disease, and an additional 25% have two or more risk factors. Moreover, more than two-thirds of obese children will become obese adults. This sobering data underscores the significant long-term health implications of childhood obesity in Canada.

Inactivity and poor dietary practices are widespread among today's children and youth and experts believe that increasing obesity rates are reflective of an obesogenic social environment. Many factors contribute to the development of such a social setting including: an increased exposure to poor-quality food through an overabundance of nutritionally unbalanced snacks, convenience and fast foods; superfluous advertising of nutrient-poor, high-sugar foods aimed at children; and the lower cost of calorically dense, less nutritionally valuable food choices are also considered important contributing factors to this modern epidemic. Our youth know the beverage list at many coffee houses as well as adults do, and since many of the fancy "mocha" or "frappa" varieties contain 300 to 500 kcal, this can be a substantial addition to daily caloric consumption and may displace healthier high-fibre fruit, vegetables or other suitable snacks.

The Canadian Community Health Survey identified that 23% of children's caloric intake is from 'other food' not falling into one of the four food groups, that approximately 70% of children are not meeting the recommended intake for fruit and vegetables, and that well over 90% of Canadian youth have usual sodium intake above the recommended upper intake level. The eating habits children learn when they are young will help them maintain a healthy lifestyle when they are adults and the modification of school cultures to encourage healthful eating and reduce consumption of unhealthy foods could provide perpetuity, allowing successful interventions to continue to benefit students year after year. Given the amount of time children and youth spend in school, this environment can significantly influence students' food choices and intakes and thus is an ideal location to target healthy eating. Similarly pediatric hospitals play a leadership role in communities and are uniquely positioned to influence the behaviour of children and their families toward the adoption of healthy eating habits and other health promoting behaviours.

This newsletter will focus on areas where health promotion and championing of fruit and vegetable consumption could benefit our children.

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Rose-coloured glasses: parental perception of children's eating habits

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Parents have a fundamental responsibility to promote the healthy weight of their children. The objectives of this study, conducted among parents of children 4-12 years of age living in the Champlain region of Ontario in 2007, were to determine parent perceptions of their child's body weight, eating and physical activity behaviours, and to test a predictive model of parental perceptions of their child's physical activity and healthy eating behaviours. The study methodology and complete results are available here:
http://www.ccpnetwork.ca/pdf/ADAMO_parental%20survey.pdf

Parents believe children eat healthy

Overall, parents surveyed believe that their children are of normal weight, physically active and eat healthily. Following the application of a path analysis, we are able to demonstrate that parents do not necessarily apply the same criteria that health professionals or child health advocates do when assessing the health behaviours of their children.

Parents underestimate children's weight

Data showed that of the 1,940 randomly selected parents and caregivers surveyed, only 8.6% categorized their child as overweight and less than 1.0% identified their child as obese. This is in stark contrast to the 26% of children in the Champlain region who are estimated to be overweight or obese. This finding is consistent with previous research which shows most parents underestimate their child's weight or do not perceive them as overweight or obese. Two previous surveys, by the Dietitians of Canada and the Canadian Medical Association, evaluated parental perceptions of body weight in 6-12 year-old children. These investigations identified the same discrepancy between population levels of childhood overweight and obesity, and parental perceptions of their own children's related health measures.

Children not meeting guidelines

Our data are consistent with the earlier survey indicating that parents view their children as active. As a matter of fact, 90% of the respondents of this Champlain region parental survey reported their child to be 'active' or 'very active'. Despite these perceptions, it is known that over 50% of Canadian children are not active enough for optimal growth and 90% of Canadian children and youth are not meeting the guidelines set forth in Canada's Physical Activity Guide for Children and Youth. In Canada, a child is deemed sufficiently active if they adhere to the new Canadian Physical Activity Guide for Children recommendation of 60 or more minutes of moderate to vigorous physical activity per day. Although, only 70% of our surveyed population indicated that their child participated in 60 minutes or more of daily physical activity, 90% view their child as active.

Children not meeting fruit and vegetable intake

While over 80% of parents polled in our survey believe their child has 'very good' to 'excellent' eating habits and report healthy eating practices, this perception does not correspond to National level population data from the Canadian Community Health Survey (CCHS). This data identified that 23% of children's caloric intake is from 'other food' not falling into one of the four food groups and that approximately 70% of children are not meeting the recommended fruit and vegetable intake. Upon closer examination of the responses, 25% reported their child eats less than three servings of fruit and vegetables daily. Although 46% of the parents surveyed had children over nine years of age, only 16% reported a fruit and vegetable consumption that would meet 'Eating Well with Canada's Food Guide' recommendations of six or more fruits or vegetables each day.

Knowledge gap

The findings of this study indicate that parents surveyed do not appear to understand current recommendations for physical activity and healthy eating behaviours in children. Parents appear to base their judgment of what constitutes a healthy amount of physical activity or appropriate eating behaviours on minimal information that is not consistent with the knowledge applied by health professionals and public health authorities. This study highlights an important knowledge gap between parents and the professional community on issues fundamental to the physical activity, eating behaviours and, ultimately, the health of their children.

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Canadian pediatric hospitals part of the problem or solution?

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Over the last 30 years, the proportion of children who are overweight or obese has risen dramatically with the most recent data indicating that 26% of Canadian children and youth are categorized as overweight or obese. Fruit and vegetable intake is inversely associated with obesity and the Canadian Community Health Survey indicated that 70% of Canadian children are not meeting the recommended daily intake of fruit and vegetables.

Nation-wide survey

Working in partnership with local Canadian Paediatric Society (CPS) healthy active living (HAL) champions and the Canadian Association of Paediatric Health Centres (CAPHC) Liaisons, a nation-wide survey was conducted in 2006-2007 to identify healthy eating, physical activity, and smoking cessation practices in all 16 Canadian Paediatric academic hospitals in Canada. The full and complete report of the survey results is available here (http://www.pulsus.com/journals/pdf_frameset.jsp?jnlKy=5&atlKy=9832&isArt=t&jnlAdvert=Paeds&adverifHCTp=&sTitle=Practising what we preach: A look at healthy active living policy and practice in Canadian paediatric hospitals, Pulsus Group Inc&HCtype=Physician).

Healthy food options

The objective of this study was to obtain an overview of HAL policy and practice in Canadian paediatric hospitals. Overall, policies addressing healthy eating and/or physical activity promotion were present in 50% of hospitals with greater focus on nutrition. Wellness committees had been created in half of the hospitals, most of which had been recently established. Healthy food options were available in cafeterias, although they were often more expensive and fast food outlets were present in 75% of surveyed hospitals. In-patient meals were designed by dietitians but half offer less nutritious replacement 'kids' meals upon request.

Healthy eating policies

Options for play available to in-patients and outpatients were primarily sedentary, screen-based activities and crafts predominating over active play. Physical activity promotion for staff focused on reduced membership fees to fitness centers and classes. At the time of the survey, 50% of hospitals reported having policies regarding one or more elements of healthy eating (inpatient meals, cafeteria food, fast food sales) or physical activity promotion for staff and/or patients. Cafeteria, fast food outlets, and vending machines were accessible to members of the hospital community to procure food, with designated meal plans available to patients. Although all hospitals offered unhealthy food items, one could select an alternative healthy item in most facilities (e.g. replacing fries with salad). However, the healthy substitution was often more expensive. Fewer than half of the paediatric centres offered child-size meal portions but, in all hospitals with this option, the child size item was less expensive. Inpatient meals were designed by dietitians in all surveyed institutions with virtually all following Canada's Food Guide for Healthy Eating. Although 75% of hospitals offer low fat options - over half serve replacement kids meals upon request (hot dog, hamburger, and fries).

Policy development needed

In essence, Canadian paediatric hospitals do not adequately promote HAL for patients and staff. Findings suggest further effort is required to create necessary healthy lifestyle modifications in these institutions through CPS-CAPHC-led policy development and implementation initiatives.

Responsibility to promote health

Public perception suggests that hospitals have a responsibility to promote health, wellness and disease-prevention. Accordingly, institutional policy, long range planning and resource budgeting should be in place to address this issue. On a positive note, many Canadian hospitals are starting to develop wellness committees and establish cafeteria nutrition education programs and other promising programs to promote some aspects of HAL. For example, a similar Canadian survey from 2004, revealed that only 27% of institutions reported having dietitian time dedicated to overseeing and promoting healthy eating in the retail cafeteria and 17% had a written nutrition policy or philosophy suggesting that some limited progress has been made. Unfortunately, few guidelines have been created and implemented to date and there is an absence of a policy framework required to adequately address the major obesity-promoting factors. Only 30% of hospitals currently use dietitians to monitor compliance with national guidelines and the availability of fast food and low nutritional value vending machine snacks in hospitals is particularly disconcerting as it sends an unhealthy message to the community and may prompt those who require hospital-based care and their families to eat nutrition-poor food and drinks. Indeed, past research has shown that children who eat from vending machines or at fast food restaurants are more likely to consume foods higher in fat and drink sugar-sweetened beverages resulting in greater weight gain.

Strong policy framework

Canadian paediatric hospitals are working towards promising policies and programs to promote some aspects of HAL for patients and staff but a more comprehensive and systematic approach is needed. This study indicates the need for a strong policy framework to create and implement guidelines regarding healthy nutrition, physical activity and smoking cessation for patients, their families and staff. Specific areas that require urgent attention are the common practice of fast food vending in hospitals and the pervasiveness of sedentary activities for patients.

2011 Noni MacDonald Award winners

Dr. Solh and Dr. Adamo have been awarded the 2011 Noni MacDonald Award. This award is given annually in honour of the founding editor of Paediatrics & Child Health, the peer-reviewed journal of the Canadian Paediatric Society. It recognizes an author(s) whose article, published in Paediatrics & Child Health, has positively affected paediatrics, such as by raising awareness of an issue, presenting new scientific research, or instigating or potentially instigating change.

Should promotion of healthy eating and active living be distinct for girls and boys?

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It is of utmost importance to be efficient in delivering health promotion as in the Canadian public health care system less than 3% is allocated for resources towards health promotion and primary prevention[1]. In this study[2], we sought to assess gender-differentials in nutrition, physical activity and overweight among children aged 10 to 11 years in the province of Alberta, Canada, to bring more insights into the discussion on benefits of gender-focused prevention of chronic diseases.

Promoting healthy body weights

In 2008, we surveyed 3,421 grade five students (1,758 girls and 1,663 boys) and their parents from 148 randomly selected schools participating in the Raising Healthy Eating and Active Living Kids in Alberta (REALKidsAlberta.ca) survey. The survey aimed to evaluate a comprehensive initiative by Alberta Health and Wellness to promote healthy body weights among children and youths. Students completed the Harvard food frequency questionnaire, questions on physical activities, and had their height and weight measured. Parents completed questions on socio-economic background and their child's lifestyle.

Gender differences in nutrition

Overweight prevalence, including obesity, was slightly lower among girls (27.9%) than boys (29.1%). After adjusting for household income, parental education, residency, and calorie intake, findings from the multilevel logistic regression analysis showed statistically significant gender differentials in nutrition and physical activity. Relative to girls, boys were less likely to meet recommendation of six or more servings of vegetables and fruits per day (probability: 0.82; 95% CI: 0.71-0.96). Boys, relative to girls, were more likely to report to eat from a fast food restaurant (1.22; 95% CI: 1.05-1.43) and were more likely to have 30% or more of their dietary energy to be from dietary fat (1.68; 95% CI: 1.19-2.35). Boys were reportedly more physically active and engaged more in sports than girls.

This study confirmed the existence of gender differences in nutrition and physical activity, the underlying causes of overweight, in a large representative sample of Canadian preadolescents.

Higher physical activity level among boys

Differences in health behaviors and overweight between boys and girls may result from differences in biology, from differences assumed to be due to society or culture, or a combination of the two. Biological factors may include difference in body strength and in sexual maturation[3-5]. Consistent with our study[2], others found that boys are more likely to be physically active than girls. In addition, physical activity levels fall as young people become older, particularly among girls[5-8]. Physical activity counterbalances excess energy intake and the risk for overweight. This risk seems to be higher in rural schools and calls for programs to promote physical activity, particularly among girls during their transition from childhood to adolescence and adulthood[8]. Adolescence is linked to physical maturity and may affect physical activity behaviors as sexual maturation may be intricately involved in the adolescent decline in physical activity[4,9]. As girls mature earlier than boys[10], relatively more girls than boys are expected to have entered sexual maturation in our study population of preadolescents. This may have contributed to the higher physical activity levels among boys observed in this study.

Gender-differences in eating behaviors

Some studies support the view that social factors act like moderators in determining the relationship between behaviors and overweight, with different mechanisms among men and women[3,11]. The process of socialization that encourages girls and boys to become proficient in distinct roles affects their lives and their relative exposure to certain health behaviors. The present study observed gender-differences in eating behaviors, with higher calorie intakes among boys relative to girls, which are in line with the few available studies that focused on gender and nutrition among children and youths[12-14]. This could be due to gender-specific socialization influences from family and peers[5]. Increasing concerns about weight and shape in the social environment for girls' might also explain girls' higher frequency in the consumption of vegetables and fruits and the lower frequency in consumption of convenience foods5.

The need of gender-focused promotion of healthy eating and active living!

Gender is important in understanding how girls and boys experience and respond to health promotion[15,16]. Our findings support gender-focused health promotion initiatives whereby priority is given to physical activity among girls and to healthy eating among boys. Health promotion policies that take girls' and boys' differential biology and social vulnerability into account are more likely to be successful and cost-effective, compared to policies that do not consider such differences[1]. In Canada, it is essential to invest the limited resources for health promotion and primary prevention in the most efficient way. We recommend multisectoral approaches, based on evidence gathered with gender dimensions in mind[1].

This study adds to our understanding of the importance of gender specific promotion of healthy eating and active living as an effective strategy to reduce the burden of overweight and consequent chronic diseases.

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