

Managing pediatric obesity

Barriers and potential solutions

Gilles Plourde MSc MD PhD

Although obesity interventions frequently involve changes in family lifestyle, schools, community environment, and national policies, family physicians can play an integral role in the management and prevention of pediatric obesity, as they have long-standing relationships with obese children and their parents.¹⁻³

Family physicians can readily identify children at high risk of becoming obese, intervene, and follow up on progress.¹⁻³ However, most family physicians believe they are unprepared to manage childhood obesity, or they perceive their efforts as ineffective. **Table 1**²⁻⁹ shows multiple barriers that are associated with family physicians' failure to recognize childhood obesity early and provide appropriate interventions.

With the increasing prevalence of childhood obesity and the commitment of governments and the World Health Organization to addressing the problem, more pressure will obviously be put on family physicians to further intervene. These constraints and pressures create an urgent need in the primary care setting to develop and evaluate novel clinical strategies that directly address these barriers. The objective of this article is to identify barriers to pediatric obesity management and prevention, and to provide simple and practical strategies to overcome these barriers.

Strategies

Table 2^{1,2,10-19} outlines strategies proposed by family physicians to overcome barriers in the prevention of pediatric obesity. Some of the studies reviewed here are surveys; they are subject to sampling and self-reporting biases and low response rates. In the case of interviews, the open nature meant that the interviewed practitioners could detail their views and raise issues salient to them and ignore other issues. The attitudes and behaviour of family physicians not surveyed or interviewed might be different. Therefore, the information gathered from surveys and interviews cannot be generalized to all family physicians. However, the information provided by these studies is sufficient to identify solutions to most family physicians' concerns.

It is encouraging to note that family physicians who reported receiving obesity-management training rated themselves as considerably more competent. Likewise, family physicians aware of recommendations more readily have positive attitudes about their personal

counseling abilities and their overall effectiveness in obesity prevention.^{5,10} The availability of these tools will eventually help family physicians follow clinical practice recommendations on the management and prevention of pediatric obesity.

Davis et al¹⁰ and Koplan et al¹⁷ recommended that family physicians in primary care settings 1) calculate and plot age- and sex-specific body mass index (BMI) percentiles in all children and adolescents once a year; 2) use changes in BMI to identify rate of excessive weight gain relative to growth; and 3) encourage children and parents to eat a healthy diet, be physically active, and limit sedentary activities.

The Canadian Medical Association¹¹ published clinical practice guidelines for the management and prevention of obesity in adults and children. For the prevention of pediatric obesity, the authors recommended limiting screen time to 2 or less hours a day, encouraging more activity and less food consumption, and limiting exposure to food advertising. In 2006, I provided recommendations for family physicians specific to pediatric patients. I explained that family physicians needed to identify patients at risk; encourage reduced consumption of sugar-sweetened soft drinks; decrease sedentary behaviour; involve parents; and provide age-appropriate anticipatory guidance and early surveillance.¹ Nevertheless, the prevalence of pediatric obesity continues to rise in Canada and worldwide. Obviously, efforts to develop better ways of preventing pediatric obesity are needed.

Greater roles

It is difficult to confirm the effectiveness of family physicians' interventions in the management of pediatric obesity. Nevertheless, with the tools provided here, family physicians should be able to improve their roles in the management of pediatric obesity. To further help family physicians, policy makers should support education and training, and facilitate collaboration between family physicians and community organizations to ensure that the use of existing infrastructure and local resources is maximized. They should promote good lifestyle habits such as using the following "5, 3, 2, 1, 0" daily slogan: 5 or

La traduction en français de cet article se trouve à www.cfp.ca dans la table des matières du numéro de mai 2012 à la page e239.

Table 1. Barriers to pediatric obesity prevention identified by family physicians

BARRIER	EXPLANATION
Belief that pediatric obesity is a social or family problem	Prevention of pediatric obesity strictly concerns the individual, his or her parents, or society at large, and a family physician's duty should be limited to simply raising the issue
Parents	Parents who themselves have weight problems, low levels of education, and high levels of stress might lack motivation and involvement, and deny the weight problems of their children
Family physicians' practice level	Family physicians' lack of time, resources, knowledge of published recommendations, referral options, monetary incentives, reimbursement for services, and tools to calculate BMI and its associated health risk, as well as their desensitization to the issue
Unwillingness to change	Parents and children who are unprepared for, or uninterested in, lifestyle changes
Incongruence of goals and perceptions	Weight reduction is difficult when each member involved (ie, parents, children, and family physicians) has a different perception about weight loss
Socioeconomic status	Childhood obesity is more prevalent among families with low socioeconomic status; these families are less able to afford services and healthy foods. Junk food industries offer low prices on products and they also exert a greater influence on dietary habits

BMI—body mass index.

Data from Dorsey et al,² Baker et al,³ Turner et al,⁴ Franc et al,⁵ Spivack et al,⁶ Walker et al,⁷ Sesselberg et al,⁸ and Heintze et al.⁹

Table 2. Strategies proposed by family physicians to overcome barriers to prevention of pediatric obesity

STRATEGY	EXPLANATION
Attend education sessions and receive support	Providing short education sessions (on-site visits) regarding new BMI growth charts and updated clinical practice guidelines revealed a dramatic increase in self-reported counseling ability
Provide adequate training	Medical school curricula should include a comprehensive component on assessing and counseling children with weight problems
Provide workshops with experts	Workshops given by exercise specialists and experts in pediatric obesity, dietetics, and child psychology can provide valuable insight on new treatment options, improving current health care methods, and addressing motivation
Use patient-centred software	Standardizing the collection of relevant patient information from initial medical assessments and follow-up visits saves time and improves efficiency
Use learning modules	Learning modules provide guidance on nutrition, physical activity, and behaviour modification using a structured treatment manual for weight counseling
Use electronic health records with automatic electronic alerts	Electronic health records with automatic electronic alerts provide easy calculation of BMI values and automatically display trends in patient weight changes. Electronic health records also force documentation and allow for efficient follow-up
Provide parents with take-home messages	Most parents become more receptive to providing weight-related counseling and less resistant to behaviour changes when they are well informed about their children's health
Encourage parents	Parents can serve as models for change; primary care providers should encourage them to make lifestyle adjustments a family affair
Provide resources to patients and parents	Detailed weight management recommendations (eg, handouts of <i>Canada's Food Guide</i> , <i>Canada's Physical Activity Guide</i>) and links to accredited websites might ease the work of family physicians
Use the Standardized Obesity Family Therapy treatment model	By focusing on family interactions, this model can help improve obesity, physical fitness, self-esteem, and family functioning

BMI—body mass index.

Data from Plourde,¹ Dorsey et al,² Davis et al,¹⁰ Lau et al,¹¹ Nowicka and Flodmark,¹² Perrin et al,¹³ Young et al,¹⁴ Polacsek et al,¹⁵ Etz et al,¹⁶ Koplan et al,¹⁷ Whitlock et al,¹⁸ and Rodin et al.¹⁹

more servings of fruits and vegetables; 3 structured meals (including breakfast); 2 hours or less of television or video games; 1 hour or more of moderate to vigorous physical activity; and 0 sweetened beverages. Finally, family physicians should take an active

stance in the management and prevention of obesity, as well as take advantage of resources such as continuing medical education training to keep well informed on BMI measurements and new effective counseling techniques.



Dr Plourde is Senior Clinical Evaluator at the Centre for Evaluation of Radiopharmaceuticals and Biotherapeutics, Health Canada, Bldg 7, A/L 0700C, Ottawa, Ont.

Competing interests

None declared

Correspondence

Dr Gilles Plourde, Drug Safety Unit, Director's Office, Centre for Evaluation of Radiopharmaceuticals and Biotherapeutics, Health Canada, Bldg 7, A/L 0700C, 200 Tunney's Pasture Driveway, Ottawa, ON K1A 0K9; telephone 613 954-7072; fax 613 946-0639; e-mail gilles.plourde@hc-sc.gc.ca

The opinions expressed in commentaries are those of the authors. Publication does not imply endorsement by the College of Family Physicians of Canada.

References

1. Plourde G. Preventing and managing pediatric obesity. Recommendations for family physicians. *Can Fam Physician* 2006;52:322-8.
2. Dorsey KB, Mauldon M, Magraw R, Valka J, Yu S, Krumholz HM. Applying practice recommendations for the prevention and treatment of obesity in children and adolescents. *Clin Pediatr (Phila)* 2010;49(2):137-45.
3. Baker JL, Farpour-Lambert NJ, Nowicka P, Pietrobelli A, Weiss R. Evaluation of the overweight/obese child—practical tips for the primary health care provider: recommendations from the Childhood Obesity Task Force of the European Association for the Study of Obesity. *Obes Facts* 2010;3(2):131-7. Epub 2010 Apr 6.
4. Turner KM, Shield JP, Salisbury C. Practitioners' views on managing childhood obesity in primary care: a qualitative study. *Br J Gen Pract* 2009;59(568):856-62. Epub 2009 Aug 26.
5. Franc C, Van Gerwen M, Le Vaillant M, Rosman S, Pelletier-Fleury N. French pediatricians' knowledge, attitudes, beliefs towards and practices in the management of weight problems in children. *Health Policy* 2009;91(2):195-203. Epub 2009 Jan 21.
6. Spivack JG, Swietlik M, Alessandrini E, Faith MS. Primary care providers' knowledge, practices, and perceived barriers to the treatment and prevention of childhood obesity. *Obesity (Silver Spring)* 2010;18(7):1341-7. Epub 2009 Nov 10.
7. Walker O, Strong M, Atchinson R, Saunders J, Abbott J. A qualitative study of primary care clinicians' views of treating childhood obesity. *BMC Family Pract* 2007;8:50.
8. Sesselberg TS, Klein JD, O'Connor KG, Johnson MS. Screening and counseling for childhood obesity: results from a national survey. *J Am Board Fam Med* 2010;23(3):334-42.
9. Heintze C, Metz U, Hahn D, Niewöhner J, Schwantes U, Wiesner J, et al. Counseling overweight in primary care: an analysis of patient-physician encounters. *Patient Educ Couns* 2010;80(1):71-5. Epub 2009 Dec 4.
10. Davis MM, Gance-Cleveland B, Hassink S, Johnson R, Paradis G, Resnicow K. Recommendations for prevention of childhood obesity. *Pediatrics* 2007;120(Suppl 4):S229-53.
11. Lau DC, Douketis JD, Morrison KM, Hramiak IM, Sharma AM, Ur E. 2006 Canadian clinical practice guidelines on the management and prevention of obesity in adults and children [summary]. *CMAJ* 2007;176(8):1-117.
12. Nowicka P, Flodmark CE. Family therapy as a model for treating childhood obesity: useful tools for clinicians. *Clin Child Psychol Psychiatry* 2011;16(1):129-45. Epub 2010 Jul 22.
13. Perrin EM, Jacobson Vann JC, Lazorick S, Ammerman A, Teplin S, Flower K, et al. Bolstering confidence in obesity prevention and treatment counseling for resident and community pediatricians. *Patient Educ Couns* 2008;73(2):179-85.
14. Young PC, DeBry S, Jackson WD, Metos J, Joy E, Templeman M, et al. Improving the prevention, early recognition, and treatment of pediatric obesity by primary care physicians. *Clin Pediatr (Phila)* 2010;49(10):964-9.
15. Polacsek M, Orr J, Letourneau L, Rogers V, Holmberg R, O'Rourke K, et al. Impact of a primary care intervention on physician practice and patient and family behavior: Keep ME Healthy—the Maine Youth Overweight Collaborative. *Pediatrics* 2009;123(Suppl 5):S258-66.
16. Etz RS, Cohen DJ, Woolf SH, Holtrop JS, Donahue KE, Isaacson NF, et al. Bridging primary care practices and communities to promote healthy behaviors. *Am J Prev Med* 2008;35(5 Suppl):S390-7.
17. Koplan JP, Liverman CT, Kraak VA, editors. *Preventing childhood obesity. Health in the balance*. Washington, DC: The National Academies Press; 2004. p. 1-20.
18. Whitlock EP, Williams SB, Gold R, Smith PR, Shipman SA. Screening and interventions for childhood overweight: a summary of evidence for the US Preventative Service Task Force. *Pediatrics* 2005;116(1):e125-44.
19. Rodin RL, Alexander MH, Guillory VJ, Rogers J. Physician counseling to prevent overweight in children and adolescents: American College of Preventative Medicine position statement. *J Public Health Manag Pract* 2007;13(6):655-61.
