

SHORT COMMUNICATION

Pediatric weight management programs in Canada: Where, What and How?

GEOFF D. C. BALL¹, KATHRYN A. AMBLER¹ & JEAN-PIERRE CHANOINE²

¹Dept of Pediatrics, University of Alberta, Edmonton, AB, Canada, ²Dept of Pediatrics, University of British Columbia, Vancouver, BC, Canada

Abstract

Our purpose was to conduct a national environmental scan of pediatric weight management programs in Canada. Data were entered by program representatives regarding the history, structure, and function of their weight management programs using an online survey that our team developed in partnership with the Canadian Obesity Network (www.obesitynetwork.ca). Of the 18 programs that were identified, all included multidisciplinary teams that take a family-centred, lifestyle/behavioural therapeutic approach; health services were accessed primarily through physician referral. Most programs were launched in the past five years with public funding and enrolled ~125 clients/year into one-on-one and/or group-based weight management care. Although many participated in research and were affiliated with academic institutions, most did not systematically evaluate their obesity-related programming. Based on these observations, recommendations related to program evaluation, health services delivery, and network collaborations are provided to inform future directions for research and clinical care that have both domestic and international relevance.

Key words: Obesity, pediatrics, weight management, health services, Canada

Pediatric obesity has developed into a global health issue that impacts the health of millions of young people. In Canada, approximately 25% of children and youth ($n \approx 2\,000\,000$) are overweight or obese (1,2). Because of the adverse health consequences associated with excess weight (3), specialized programs that offer pediatric weight management care have emerged to address this complex health issue. A number of research, clinical, and networking activities in Australia (4), Canada (5), Germany (6), the United Kingdom (7), and the United States (8,9) have been undertaken in recent years to examine and enhance weight management care for children, youth, and their families. In Canada, the details of pediatric weight management programs and the services they offer have yet to be described. Accordingly, our objectives were to conduct the first national environmental scan of programs that offer pediatric weight management care and reflect on their role in the overall management of pediatric obesity.

In the absence of a national directory, we undertook an iterative process to identify existing pediatric

weight management programs across Canada using several approaches, including announcements at national academic conferences, advertisements on the Canadian Obesity Network (CON) website (www.obesitynetwork.ca), and by word-of-mouth. To capture and organize program-related data, we developed an online survey tool that received entries from March to December in 2009. Data were voluntarily entered by program representatives and a variety of clinical/programmatic issues were queried (i.e., inclusion criteria, intervention details). From February and March in 2010, program leaders were contacted by telephone or email to confirm the accuracy and completeness of their submissions and address outstanding issues. For the sake of inclusivity, the operational definition of a *pediatric weight management program* was left to the discretion of program representatives. After excluding two programs from our list (one was non-Canadian, and another was adult-oriented), we identified 18 independent pediatric weight management programs located in six out of ten Canadian provinces and three territories (Figure 1).

Address for correspondence: Geoff D. C. Ball, Department of Pediatrics, University of Alberta, Director, Pediatric Centre for Weight and Health, Edmonton General Site, Unit 8B, Edmonton General Continuing Care Centre, 11111 Jasper Avenue, Edmonton, AB, Canada, T5K 0L4. www.ualberta.ca/~gdball. Fax: 1 780 342 8464. Email: geoff.ball@ualberta.ca

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Figure 1. Geographic distribution of pediatric weight management programs in Canada.

We believe most programs were included in this scan, but are hopeful that representatives from additional centres will complete the survey, which is accessible through the CON website (www.con-initiatives.com) and will remain open to encourage networking.

Our descriptive analysis of program-related data (Table I) raises several key questions related to pediatric weight management. Although our discussion takes a Canadian perspective, we believe these issues are generally relevant for administrators, clinicians, and researchers, especially for those in countries in which pediatric weight management research and clinical care remains an emerging field.

1. Are programs being evaluated?

Most Canadian programs are publicly funded. Although this reflects a commitment by Canadian children's hospitals and health regions to provide weight management services in a manner that is similar to other pediatric subspecialties, few programs are funded to support evaluation and research. This is a shortcoming as programs outside Canada

have reported positive treatment outcomes (6), but have also highlighted major challenges including high levels of intervention attrition and poor long-term maintenance of health improvements. To our knowledge, there are no published, peer-reviewed reports that document the successes or challenges of Canadian pediatric weight management programs; however, our survey suggests evidence will emerge from research-based centres to address this shortcoming in the next 2 to 3 years. Program administrators and institutional stakeholders will require these evaluation data to inform decisions regarding resource allocation and long-term funding support, which will influence program growth and development. We recommend that program leaders strive to allocate resources or collaborate with individuals who possess the necessary expertise to evaluate their programs. This should include process-related measures (i.e., wait times or program attrition) as well as broadly-defined health outcomes and cost effectiveness analyses to ensure available resources are allocated appropriately. As a starting point, the UK-based National Obesity Observatory proposed a practical,

Table I. Characteristics of Canadian pediatric weight management programs.

Question	Response
How many programs were identified?	18
For how many years has your program been operational?	5 (median); 6 (mean); 1–20 (range)
How can families access your program? Select all that apply.	Physician referral (18/18; 100%) Other health professional referral (11/18; 61%) Self-referral (8/18; 44%)
How many children and youth are enrolled annually?	55 (median); 127 (mean); 15–600 (range)
What age groups* does your program serve?	Children and youth (15/18; 83%) Youth only (2/18; 11%) Children only (1/18; 6%)
What are the overweight/obesity inclusion criteria?	Body mass index \geq 85 th percentile (9/18; 50%) Body mass index \geq 95 th percentile (4/18; 22%) Other (5/18; 28%)
How is weight management care delivered? Select all that apply.	One-on-one care (16/18; 89%) Group-based intervention (13/18; 72%) Internet-based intervention (1/18; 6%)
What weight management services are available? Select all that apply.	Lifestyle/behavioural counseling (16/18; 89%) Structured exercise plans (8/18; 44%) Energy-reduced diets (6/18; 33%) Pharmacotherapy (5/18; 28%) Bariatric surgery (1/18; 6%)
Is your program multidisciplinary**?	Yes (18/18; 100%)
Does your program require parental participation?	Yes (17/18; 94%)
Is your program funded by a hospital or health region?	Yes (12/18; 67%)
Is your program affiliated with an academic institution?	Yes (13/18; 72%)
Are you evaluating your program?	Yes (5/18; 28%) No (7/18; 39%) Plan to in the future (6/18; 33%)
Does your program participate in research?	Yes (14/18; 78%)

*Children: within the 0–12-year-old age range; youth: within the 13–18-year-old age range.

**The degree of multidisciplinary varied program-to-program; all included health professionals from at least two different disciplines.

evidence-informed evaluation framework that can provide guidance (7). Evaluation will be particularly relevant for newer obesity interventions, such as adolescent bariatric surgery, a therapy that is currently available on a limited basis at only one of our Canadian centres.

2. What is the role of these programs in the overall delivery of health services?

The total capacity of all 18 weight management programs is three orders of magnitude smaller than the number of boys and girls eligible for weight management care in Canada. As in other countries, there is a clear need to translate obesity-related health services from specialized centres (i.e., children's hospitals) to the primary care environment (i.e., family physician offices) where most families access care. We recommend that health professionals from tertiary and primary care settings work collaboratively to develop efficient and effective pediatric weight management interventions that can be offered in community-based settings. Such efforts will allow tertiary-level programs to orient health services for those individuals who require more intensive, specialized care. Given that real and perceived barriers

may preclude such collaborations, targeted funding and infrastructure will be required for these initiatives. In the absence of integrated, multi-level, pediatric weight management strategies, the physical, metabolic, and psychosocial health consequences of pediatric obesity will overwhelm existing healthcare system capacity.

3. Will programs derive meaningful benefits by working collaboratively as a network?

Survey respondents revealed that Canadian programs take a family-centered approach, include multidisciplinary teams of professionals, and emphasize lifestyle and behavioural intervention strategies for weight management. However, the variability in intervention models and treatment outcomes make it challenging to make comparisons across centres. We recommend, similar to the field of pediatric oncology in Canada (10), that all Canadian pediatric weight management programs actively participate in a national research network of data collection to help define a universal and comprehensive evaluation and research framework. An initiative is underway with a sub-set of pediatric weight management programs to begin this process (11), which is consistent with the

mandates of the CON and a new national research network (Treatment and Research for Obesity in Pediatrics in Canada, TROPIC). Similar networking initiatives have started in other countries (8,9,12), so an optimistic view of these developments suggests an international collaborative network, which could be enabled by the International Association for the Study of Obesity, is on the horizon.

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