A holistic approach to weight management for children and teens

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Prevention Rounds

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Centre for Healthy Weights- Shapedown BC
The Centre for Healthy Weights - Shapedown BC

MANDATE:
• To implement an evidence-based Pediatric Weight Management Program at BC Children’s Hospital

• To act as a Provincial Resource to support and advocate for standardized resources and information throughout the province.

OBJECTIVE:
• To facilitate changes in individual and family functioning that lead to sustainable, enjoyable, and healthy lifestyle habits and attitudes.
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Components

- Provincial Resource Centre
- Program
- Partnerships
- Research and Evaluation

Consistent  Coordinated  Collaborative
Based on:

2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children
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- Multidisciplinary
- Family-centered
- Lifestyle Approach
- Behavioural
- Evidence-Based
Multidisciplinary

The Core Team
– Registered Dietitian
– Mental Health Professional
– Physician

The Fitness/Activity Specialist
– Support and education for groups
– To facilitate ongoing linkages and access for children, adolescents and their families to fitness activities in their communities.
Family Centered

- Individualized to meet the needs of the child/teen and family
- Recognizes family capacity/underlying contributors
- Culturally, ethnically, socioeconomically respectful

Lifestyle Approach

- Non-diet approach
- Positive body image, self-acceptance
- Respectful guidance
- Acknowledges barriers
- Environmental compatibility
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Behavioural

- SMART goal setting
- Skills and tools to change behaviour
- Motivational Interviewing/Readiness
- Screening tools for anxiety, depression, eating disorders; family function

Evidenced-Based

- 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children
- On-going support post intervention
- Evaluation/Responsive team/resources/programs
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Respectful  Non-judgemental  Sensitive
Program Components

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Referral Criteria

- 6-17 years
- 97% BMI for age
- 85% BMI for age with co-morbidities
- Parental participation
- English speaking
Initial Contact

- Physician Referral
- Assign an ID number
- Review for admission criteria:
  - 6-17 years old
  - BMI >97% or >85% with co-morbidities
  - At least one parent/caregiver is able to speak, understand and read English
Telephone Screening

- Share information
- Answer questions
- Determine interest & capability of attending intake, care planning & group
- Screen for “fit” (i.e., special needs, timing of participation)
Book 2 appointments

- Multidisciplinary Intake Assessment 4 hours

- Feedback, Care-planning Meeting 1 hour RD and Mental Health Professional
Program Components

Referral  Assessment  Case Planning  Feedback  Intervention
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Intake Assessment (4 hours)

- Medical
- Psycho-social
- Nutrition and Lifestyle
Medical Assessment

Purpose:

- Cause
- Contributing Factors
- Complications
- Risk stratification
- Medical Eligibility
Psychosocial Assessment

- Self-concept (including body image)
- Anxiety & worry
- Depression
- Disordered Eating
- Family functioning & support
- Readiness to make lifestyle changes
Nutrition and Lifestyle Assessment

Nutrition Assessment

24 hour recall

Snapshot of  When, What, How

Patterns

Quantity

Quality

Style

Physical Activity

Active /enriching life: Hobbies, sports, interests

Family activity

School activity

Playtime

Sedentary Lifestyle

Screen time (TV, video games, computer), TV in bedroom
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Program Components

- Referral
- Assessment
- Case Planning
- Feedback
- Intervention
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MEDICAL
Strengths: ________________________
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Challenges: ________________________
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FAMILY
Strengths: ________________________
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Challenges: ________________________
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SCHOOL/PEERS
Strengths: ________________________
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Challenges: ________________________
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PSYCHOLOGICAL
Strengths: ________________________
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Challenges: ________________________
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LIFESTYLE-Nutriton
Strengths: ________________________
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Challenges: ________________________
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LIFESTYLE- Activity
Strengths: ________________________
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Challenges: ________________________
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_________________________________
_________________________________

WEIGHT

Readiness_____________________________________
_______________________________________
Program Components

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Feedback Session (1 hour)
RD and Mental Health Professional

- Short term goal established at intake is assessed.
- Feedback tool is discussed within context of family strengths
- Care plan and appropriate intervention discussed within context of family challenges, capacity and readiness
- Team report is sent to referring physician
Program Components

- Referral
- Assessment
- Case Planning
- Feedback
- Intervention
INTERVENTION

10 * weeks total
10 - 12 families per group
Children age clustered

- 1 session/week at BCCH site (2 hours)
- 1 Family Fun Session/week at YMCA (1 hour)

*3 additional sessions for teens only addressing emotional eating
SESSION STRUCTURE

- Co-facilitated by dietitian & psychologist
- Separate child/teen & parent session
- Joint session
- 30 minutes of activity for child/teen with YMCA instructor
- Nutritious Snack
THEMES

- SMART Goal setting
- Nutrition education
- Active living
- Parenting skills
- Communication and problem-solving skills
- Self-esteem
What happens after group?

- Continued participation at Y Family Fun Fitness sessions throughout the year.
- Family memberships
- Family coaching
- CHW- Shapedown BC Newsletter
- Access to RD and Psychologist for occasional booster session
- Repeat of age—appropriate group
Summary of Evaluation Outcomes

Int. J. Environ. Res. Public Health 2011, 8, 4662-4678

Over the short-term, Shapedown BC is effective in addressing:

1. Medical outcomes
   ✓ Change in trajectory of weight gain from intake to program completion
   ✓ Reduction in BMI z-score and waist circumference

2. Psychological Outcomes
   ✓ Improvement in Beck Youth Inventory scores: Self concept and anxiety scores showed a significant improvement from intake to program completion

3. Physical activity
   ✓ Improvement in reported mod-vigorous physical activity
   ✓ Decrease in reported sedentary activity
High prevalence of metabolic syndrome at intake

Metabolic syndrome for youth is defined as waist circumference > 90th%ile and at least 2 of the above risk factors.
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**CBCL From Intake**

<table>
<thead>
<tr>
<th>Child Behaviour Checklist</th>
<th>Normal (%)</th>
<th>Borderline (%)</th>
<th>Clinical (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intake Data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalizing Problems(^1)</td>
<td>41.8</td>
<td>9.1</td>
<td>49.1</td>
</tr>
<tr>
<td>Externalizing Problems(^1)</td>
<td>69.1</td>
<td>11.8</td>
<td>19.1</td>
</tr>
<tr>
<td>Total Problems(^1)</td>
<td>45.5</td>
<td>19.1</td>
<td>35.5</td>
</tr>
</tbody>
</table>

\(^1\)normal: T-score<60, borderline: T-score 60-63, clinical: T-score>63
Nutrition and Lifestyle changes are key

- Requires great sensitivity to the social, cultural and ethnic context that food and activity hold within a family unit
- Present guidance to change that is compatible with the child’s/family’s readiness level and realistic to family’s capacity
- Understand the no-diet approach to weight management and distinguish between this and the diet/weight loss focus approach
TARGETS for change re:

- Sedentary behaviour
- Screentime
- Processed foods
- Eating out
- Sugary drinks
- Anxiety
  - Family meals
  - Fruits and vegetables
  - Whole grains
  - Family active time
  - Family communication
  - Parenting skills
  - Consistent meal and snack times
  - Self-esteem

NOT WEIGHT!
Next Steps

The Centre for Healthy Weights: Shapedown BC

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PROGRAM TEAM

Dr. Mary Hinchliffe, Medical Director
Dr. Janice Blocka, Physician
Arlene Cristall, RD/Program Coordinator
Leah Perrier, Registered Dietitian
Lauren Gibson, Registered Dietitian
Dr. Sandy Klar, Psychologist
Dr. JP Chanoine - Research

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