On the Efficacy of family-centered treatment in managing childhood obesity

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Background

• Childhood obesity affects 1 in 3 children in the US
  • AltaMed communities have a higher prevalence
  • Adults in AltaMed are obese as well
• Main determinants for obesity are linked to diet and exercise:
  • Poor health literacy and ignorance of healthy lifestyles
  • Access to healthy options as opposed to high caloric foods
  • Lack of green space or limited resources prevent families from seeking low-cost exercise options
Introduction to STOMP

  - Modeled after AltaMed’s 1st obesity clinic in Santa Ana
  - Based in Boyle Heights; enrolled based on BMI
- Family-focused, long-term management
  - 1 consult/orientation prior to intervention
  - 12-weekly classes with a nutritionist (for parents)
  - 12-weekly exercise sessions with a physical activity specialist (for children)
  - 9 months of post-intervention follow-up
Tools: The STOMP Contract

Commitment between Parents and Children

Date: ________________

Valid from: ________________ to ________________

I, ________________________ commit myself to maintain my weight _______ lbs. Or decrease it by _______% or more. I will achieve this goal by doing my daily one hour exercises and eating healthy. When I reach this goal, I would like to be rewarded with ________.

I, ________________________ will reward my child when he/she reaches their goal.

Reward valid from ________________ to ________________

Children Signature ____________________ Parent Signature ____________________

*Note: Kids may not tolerate anything to do with TV, video games, computers and fast food.
*Parents: Support and if possible, help your children with setting and achieving goals for a healthier future.

Pediatric Obesity Program
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Initial enrollment for STOMP in Boyle Heights

Initial Enrollment # of Patients

- 6-8 years: 9
- 9-12 years: 10
- 13+ years: 5
Methods: Tracking of BMI during the program

- BMI was chosen as a quality measure:
  - easy to obtain
  - Cost-effective
  - Not as affected by a child’s growth pattern
- Measurements were taken mid-way through the intervention

<table>
<thead>
<tr>
<th>Age Group</th>
<th># Patients with ↓ BMI</th>
<th># Patients with ↑ BMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-8 years</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>9-12 years</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>13+ years</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>6</td>
</tr>
</tbody>
</table>
Results from the 6-8yr age group

BMI Tracking by Case: 6-8yrs age group

- Case 1
- Case 2
- Case 3
- Case 4
- Case 5
- Case 6

Change in BMI

- Child's Δ in BMI
- Parent's Δ in BMI
Results from the 9-12yr age group

BMI Tracking by Case: 9-12yrs age group

- Change in BMI
- Child's Δ in BMI
- Parent's Δ in BMI
Results from the 13+yr age group

BMI Tracking by Case: 13+yrs age group

- Change in BMI
  - Case 1
  - Case 2
  - Case 3

- Child's Δ in BMI
- Parent’s Δ in BMI
Summary and Discussion:

- There significant changes in BMI found in both children and parents during the intervention.
- There was a direct correlation found between the change in a child’s BMI and their parent’s BMI.
  - For all children with ↓ BMI; their parents ↓ BMI as well.
  - For all children with ↑ BMI; their parents ↑ BMI.
- Clinical significance: Parents’ participation is a key determinant in the effectiveness of any childhood obesity management program.
- Parents should be held accountable for compliance with any obesity treatment plan.
Recommendations

PARENT SURVEY
STOMP PROGRAM FOR KIDS

1. Did you set a goal with your child for the program?
   - ☐ No. We did not set a goal.
   - ☐ Yes. I set a goal for my child.
   - ☐ Yes. We each set a goal, but we have different goals.
   - ☐ Yes. We set the same goal and a reward for when we get it.

2. Are other people in the family/household participating in this goal?
   - ☐ No. Only my child is working on the goal.
   - ☐ Yes. But only my child is participating. The others are not.
   - ☐ Yes. Everyone is participating, but they are not happy about it.
   - ☐ Yes. Everyone is participating and they are all supportive of it.

3. How do you do the exercise homework for this program?
   - ☐ I ask my child if he or she has done the exercises each day.
   - ☐ I make sure my child does the exercises each day.
   - ☐ I do the exercises with my child each day.
   - ☐ Everyone in the house does the exercises together each day.

4. What do you think is the hardest part about this program?
   - ☐ It is hard to avoid all other drinks besides water and non-fat milk.
   - ☐ It is hard to avoid fast food, or to eat meals at home.
   - ☐ It is hard to avoid TV, or to keep my children from watching TV.
   - ☐ It is hard to do the exercise everyday.
   - ☐ Other:

5. What do you think would make this program easier for you or your child?
   - ☐ I want more help with nutrition: recipes, coupons, ideas.
   - ☐ I want more help with exercise: workouts, activities, fun ideas.
   - ☐ I want more help with mental health: resentment or rebellion.
   - ☐ I want more help motivating my family to participate.
   - ☐ Other:

6. Which nutrition class did you learn the most from?
   - ☐ Reading Nutrition Labels
   - ☐ Balance between Meals and Portions / My Plate
   - ☐ Rule of 3 & Eating Out
   - ☐ How to Handle Holidays, Parties and Cooking Demonstration
   - ☐ Other: ______________________

7. Which nutrition class did you learn the least from?
   - ☐ Reading Nutrition Labels
   - ☐ Balance between Meals and Portions / My Plate
   - ☐ Rule of 3 & Eating Out
   - ☐ How to Handle Holidays, Parties and Cooking Demonstration
   - ☐ Other: ______________________

8. How do you think your child will do on the physical exercise test?
   - ☐ Very confident. I know we prepared well for the test.
   - ☐ Confident. I think we did our best to prepare for the test.
   - ☐ Not confident. We tried to prepare for the test, but it was hard.
   - ☐ I don’t know.
   - ☐ Other: ______________________

9. Would you like someone to help you keep this healthy lifestyle change?
   - ☐ Yes
   - ☐ No
   - ☐ I am not sure

10. How can we improve this program for you or future families?
    ________________________________
    ________________________________
    ________________________________
    ________________________________
Conclusion

• One of the major barriers for effective treatment of childhood obesity is active participation from the parents.
• Resistance at home may be encountered with regards to lifestyle changes and other treatment plans.
• It is important to assess the parents’ willingness to comply with the STOMP program and identify areas for improvement with regard to:
  1. entire household participation
  2. choice of food and diet
  4. exercise habits
  3. other barriers to effective treatment.
Thank you!