Background and Significance

Children with Down syndrome:
- are at heightened risk for obesity and related comorbidities.
- demonstrate rapid weight gain between the ages of 2 and 6.

In order to develop health promoting interventions tailored to meet the needs of children with Down syndrome, it is critical that we understand the unique facilitators and barriers to healthy habits families experience.

**Objectives**

To describe the facilitators and barriers to health among young children with Down syndrome from the perspective of parents.

**Methods**

**Design:** Qualitative (semi-structured interviews)

**Participants:**
- Parents of young children (aged 1-3) with Down syndrome

**Measures:** Transcribed interviews, Codebook, NVivo

**Data Analysis:**
- A codebook of topics and potential themes was developed using a socioecological model of obesity risk for children with developmental disabilities.
- Interviews were coded in NVivo software using the codebook by three independent coders.
- Facilitators/barriers were categorized at the level of child, family, or community.
- Iterative thematic analysis was completed by the research team to identify common themes reported among participant families.

**Results**

<table>
<thead>
<tr>
<th>Child Characteristics</th>
<th>n (%)</th>
<th>Parent Characteristics</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Gender</td>
<td></td>
<td>Parent Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14 (56)</td>
<td>Female</td>
<td>25 (100)</td>
</tr>
<tr>
<td>Child Race</td>
<td></td>
<td>Parent Employment</td>
<td></td>
</tr>
<tr>
<td>White/Caucasian</td>
<td>22 (88)</td>
<td>Full-Time</td>
<td>11 (46)</td>
</tr>
<tr>
<td>Multi-racial</td>
<td>2 (8)</td>
<td>Works in Home</td>
<td>9 (38)</td>
</tr>
<tr>
<td>Child Ethnicity</td>
<td></td>
<td>Parent Education</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic</td>
<td>20 (80)</td>
<td>Bachelors Degree</td>
<td>8 (33)</td>
</tr>
</tbody>
</table>

**FACILITATORS**

At the child level:
- Adventurous Eaters
- Playful and Active
- Screen Indifference
- "Good" Sleepers
- Child Behavior
- Consistent Routines
- Siblings
- Repeated Exposure
- Active Families

At the family level:
- Siblings
- Fast Foods
- Screens To-Go
- Shifts To Routine

**BARRIERS**

At the child level:
- "eat and eat and eat"
- Feeding Problems
- Gross Problems
- Rapid Weight Gain
- Sleep Apnea
- Child Behavior
- Lack of Time
- Fast Foods
- Screens To-Go
- Shifts To Routine

**Conclusion**

- Families of young children with Down syndrome face similar barriers to healthy habits as other families (i.e., competing demands and convenience of fast food).
- Children with Down syndrome also have unique medical issues and developmental delays that contribute to additional barriers to healthy habits (i.e., satiety signals, sleep apnea, need for adaptive devices).

**Clinical Implications**

- Existing obesity prevention intervention programs may not meet the needs of families with young children with Down syndrome.
- Tailoring interventions to empower parents to build healthy family routines and overcome these barriers is critical to promote better health outcomes long-term.

**Future Work**

We are currently testing the feasibility of a novel intervention, PrO-PEAR (Preventing Obesity through Parent Empowerment and the Activation of Routines) in a sample of young children with Down syndrome.

This intervention was developed using existing obesity prevention programs, mixed methods data, and a steering committee of stakeholders.

**Acknowledgements and Funding**

This work was funded by the Comprehensive Opportunities in Rehabilitation Research Training (CORRT) K12 Program (K12 HD055931). We would like to recognize Emily Haus and Amber Shojaie for their help in designing this poster.