Childhood Obesity in Primary Care: Results of a Novel Pilot Collaborative to Improve Obesity-related Risk Assessment at Well-child Visits

Janice L. Liebhart1, Victoria W. Rogers1,2, & Jeanne Lindros1

1American Academy of Pediatrics Institute for Healthy Childhood Weight; 2Let’s Go!, The Barbara Bush Children’s Hospital at Maine Medical Center

Ms. Liebhart, Dr. Rogers, and Ms. Lindros have no financial relationships to disclose or conflicts of interest to resolve.

Background & Methods

Rationale: A gap remains between the primary care provided to pediatric patients and standards for obesity prevention and treatment. Systems-level quality improvement (QI) processes are likely needed. However, QI projects are often time-resource-intensive or focused on the level of individual providers. To address these issues, a virtual, team-based QI collaborative was conducted to facilitate a comprehensive obesity-related risk assessment at well-child visits, including growth, behavioral, and medical risks.

Purpose: To evaluate the feasibility and effectiveness of a novel QI project to improve obesity-related care at well-child visits.

Design & Methods:

- Participants and Basic Structure: 11 diverse practice teams, including 35 pediatricians and 37 staff, implemented changes while participating in a 19-week QI collaborative, involving 4 national webinars and 4 local meetings.
- Pediatricians seeking part 4 Maintenance of Certification (MOC) credit also completed four required Continuing Medical Education (CME) modules.
- Other Intervention Supports: Teams had access to two additional (optional) CME modules, ongoing technical assistance, tools for each area of obesity-related risk assessment; and a comprehensive algorithm.
- Clinical Data: To minimize burden, teams submitted clinical data at 3 time points, based on most-recent charts, including ≥20 charts/team and ≥0.5 charts/pediatrician. Up to 9 clinical measures/team were calculated (as related risk assessment, and a comprehensive algorithm). CME modules, ongoing technical assistance, tools for each area of obesity prevention; and a comprehensive algorithm.

Practice Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Characteristic</th>
<th>%</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Baseline</td>
<td>54</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>Baseline</td>
<td>50</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Obesity-specific Family History</td>
<td>Baseline</td>
<td>43</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Healthy, Active LivingBehavior</td>
<td>Baseline</td>
<td>42</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Behavioral Counseling</td>
<td>Baseline</td>
<td>39</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Obesity-specific Review of Systems Conducted</td>
<td>Baseline</td>
<td>38</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Physical Exam Conducted</td>
<td>Baseline</td>
<td>37</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Labs Obtained</td>
<td>Baseline</td>
<td>36</td>
<td>Q1 Week 9</td>
</tr>
<tr>
<td>Work-up Tests Conducted (as appropriate)</td>
<td>Baseline</td>
<td>35</td>
<td>Q1 Week 9</td>
</tr>
</tbody>
</table>

Results: Clinical Measures

- Relative to baseline values for 9 clinical measures, aggregated across all submitted charts, 6 and 7 measures were improved at T2 and T3, respectively.
- Despite the modest sampling strategy, at least a significant improvement was noted for 8 of 11 teams (median = 2 per team), with a significant decrease only observed within a single team and measure.

Results: Key Resources

- Both pediatricians and staff reported favorable levels of satisfaction with participation across specific aspects of clinical care and overall. 89% of pediatricians also completed MOC criteria.

Results: Pediatrician Capacity

- Comparisons of pediatrician survey responses support favorable changes in mindsets and behavior over time for those who completed both surveys (RR = 74%).
- Capacity changes were not observed for growth assessments but were particularly evident regarding clinical assessments for children with overweight obesity.

Results: Sustainability

- Responses to follow-up surveys by pediatrician team leaders (RR = 64%) support sustained changes or continued improvements.
- Leaders typically reported using 3 information sources, including personal observation (100%) and judgment (71%) and formal data collection efforts (57%).

Conclusions

- Preliminary results support the general feasibility and effectiveness of participation in a brief, virtual QI collaborative to facilitate the implementation of a comprehensive obesity-related risk assessment during well-child visits.
- Evidence includes:
  - Improvements over time for most clinical measures and teams.
  - Increased self-reported pediatrician capacity to provide quality care, particularly in areas relevant to children with overweight or obesity.
  - A high MOC completion rate for pediatricians.
  - Favorable pediatrician and staff perceptions regarding the feasibility and value of using key project resources.
  - Impact of participation on everyday clinical operations.
  - Overall value of participation.
  - Sustainability of achieved changes.

Limitations: A relatively modest number of practices participated in the pilot. Interpretation is also limited by the convenience sampling strategy used for clinical measures and incomplete response rates for surveys.

Next Steps: A replication/expansion of the project is presently underway, involving 23 practices from around the US, with results expected by fall, 2017.

Acknowledgements

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