Background

- Current leading causes of morbidity and mortality in primary care are cardiovascular disease, diabetes, and obesity. Current leading causes of morbidity and mortality in primary care are cardiovascular disease, diabetes, and obesity. It is necessary to address healthy behaviors during early years of life. Children have high nutritional requirements for adequate growth, overall health, brain development, and resistance to disease.Pediatricians are likely to discuss nutritional concerns during well-child visits; however, these discussions tend to be brief and inconsistent. There is a need for improved standardized nutrition-related discussions among pediatricians in primary care.

Objectives

1. Promote consistent client-centered, nutrition-based discussions between all health providers and caregivers at a pediatric primary care clinic.
2. Provide educational resources that promote caregiver understanding of recommendations to improve carryover into the home.

Methods

Setting: UPMC Children’s Primary Care Clinic – Oakland
Design: Quality Improvement Project
Inclusion Criteria:
- Age: 18-35 months
- Visit type: Well-child check
- Treating physician: Non-resident, faculty provider

Measures:
1) NutriSTEP® Toddler
   - The NutriSTEP® Toddler is a 17-item questionnaire screening tool that identifies a child’s level of nutritional risk based on current behaviors.
   - Three risk-levels identified: Low, Moderate, High
2) Brief Caregiver Survey (see questions below

Process

Prior to the NutriSTEP®, how much of this information did you already know?

- Likert Scale, 1-5
  1. None
  2. Little
  3. Some
  4. Most
  5. All

What was the most helpful:
- Completing the NutriSTEP®
- Reviewing the risk level
- Reviewing recommendations
- None of this was helpful

Caregiver Survey

- Caregiver completes screen in waiting room
- Occupational therapy (OT) student scores screen in the clinic office area
- OT student reviews risk level with caregivers and provides education and recommendations
- OT student reviews results of screen and provided education with treating physician

Child Demographics (N=29)

<table>
<thead>
<tr>
<th></th>
<th>n (%)</th>
<th>% High Risk</th>
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</thead>
<tbody>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>14 (48)</td>
<td>43%</td>
</tr>
<tr>
<td>Male</td>
<td>15 (52)</td>
<td>6%</td>
</tr>
<tr>
<td>18-23 months</td>
<td>9 (31)</td>
<td>11%</td>
</tr>
<tr>
<td>24-29 months</td>
<td>15 (52)</td>
<td>33%</td>
</tr>
<tr>
<td>30-36 months</td>
<td>5 (17)</td>
<td>20%</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>21 (72)</td>
<td>29%</td>
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</tbody>
</table>
| PCC Nutritional Risk Level & Expected Prevalence
| Low            | 16 (55) | 55.75%      |
| Moderate       | 6 (21)  | 11.30%      |
| High           | 7 (24)  | 10.17%      |

Caregiver Feedback

Written-Survey
Baseline Knowledge: Nutritional information; average score of 4 out of 5.
Most helpful items throughout process:
- 61% found reviewing the recommendations helpful
- 55% found completing the NutriSTEP® helpful
- 16% found hearing their child’s risk level helpful
- 11% found none of it helpful

Virtual Feedback
- “I offer my child healthy food, but they won’t eat it.”
- Surprised by recommended screen time
- Have awareness of the need to limit screen time but unsure of strategies
- Physical Activity: “I know my child should be moving more but I can’t get them to be more active.”

NutriSTEP® Data Collection

Flagged Questions:
- My child usually eats grain products
- My child usually eats vegetables and fruit
- My child eats meals or snacks while watching TV, or being read to, or playing with toys
- My child usually watches TV or uses the computer, or plays video games

Results

- Did Not Complete
- Completed

Implications for Future Practice

- The clinic serves children at high-risk for nutrition-related problems.
- To promote sustainability, three best practice, evidence-based recommendations were developed as potential options to meet the needs of the clinic, physicians, and families they serve.
- All recommendations focused on areas identified as priorities based on responses to the NutriSTEP® screen time, eating meals with distractions, amount of grain products consumed, and amount of foods and vegetables consumed.

Recommendations

Best: Continued use of NutriSTEP®
- Universal education sheet
- Bulletin boards

Better: New Screening Tool
- Develop revised nutrition screen with flagged questions
- Create database document in EMR to review flagged questions

Good: Educational Materials
- Topic-specific educational materials

Additional Considerations:
- Well-child visit timing
- All toddler well-child visits
- Choose age specific well-child visit

Locations
- Waiting room
- Examination room
- Usage
- As intended
- Similar to M-CHAT

References