The Pediatric Eating Assessment Tool (PediEAT): A Valid and Reliable Tool To Measure Symptoms of a Feeding Problem

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BACKGROUND

Feeding problems during early childhood are both prevalent and increasing. Identifying feeding difficulties early and providing treatments that target the underlying problem are critical to the health of the child and family. A comprehensive, valid, and reliable measure of the symptoms parents observe is an essential element of the advancement of care and research.

PURPOSE

To present the development and psychometric strength of the Pediatric Eating Assessment Tool (PediEAT), a parent-report measure of feeding problem symptoms in children 6 months to 7 years old.

METHODS

PediEAT items were developed through a systematic process of content validation

Step 1: Initial items were derived from parent interviews and evaluation of existing tools.

Step 2: Clinical and research experts evaluated the clarity and relevance of the items using content validity indices. Items were revised, added and deleted.

Step 3: Cognitive interviews with two sets of parents (with and without children with feeding problems), gave us feedback on their interpretation of the items. Items were revised, added and deleted.

Exploratory factor analysis investigated the underlying structure of the set of 97 items

567 parents of children from across the U.S. and 6 countries completed the PediEAT to evaluate its structure and validity.

- 95.2% mothers, 90.3% two-parent household
- 16% non-white, 9.1% HS education or less
- 16.3% <$40,000 income/year

466 parents also completed a criterion measure, the Mealtime Behavior Questionnaire (MBQ).

2 weeks later, 97 parents repeated the PediEAT to examine stability of the PediEAT across time.

- Redundant and non-endorsed items were eliminated.
- Principle component analysis (PCA) with varimax rotation demonstrated the data best fit a 4 component structure with 78 items.
- Each component (subscales) was examined and named.

RESULTS

Strong Temporal Stability Across 2 Weeks

<table>
<thead>
<tr>
<th>Test 1</th>
<th>Test 2</th>
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</thead>
<tbody>
<tr>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Total PediEAT Score</td>
<td>107.85 (45.75)</td>
</tr>
<tr>
<td>Physiologic Symptoms</td>
<td>19.89 (15.88)</td>
</tr>
<tr>
<td>Problematic Mealtime Behaviors</td>
<td>42.39 (18.14)</td>
</tr>
<tr>
<td>Selective/Restrictive Eating</td>
<td>24.67 (11.39)</td>
</tr>
<tr>
<td>Oral Processing</td>
<td>20.90 (10.37)</td>
</tr>
</tbody>
</table>

PediEAT Total and Subscale Scores Differentiate Children With and Without Feeding Problems

*Independent T-Test: p<.001

DISCUSSION

- Strengths:
  - High representation of feeding problems among the sample
  - Strong psychometrics
  - Discriminates among children with and without feeding problems
  - Valid for a wide age range with lower bounds of 6 months
  - Physiologic Symptom subscale is unique and factored strongest
  - The PediEAT joins 3 other parent-report tools developed by the Feeding Flock Research Team to advance the science of feeding.

Next Steps:

- Age-norming the PediEAT

CONCLUSION

The PediEAT is a valid and reliable measure of symptoms of feeding problems in young children from 6 months to 7 years.

Sufficient psychometric properties warrant use of the PediEAT in research and clinical practice to measure the severity of feeding symptoms, identify at-risk children, monitor treatment, and guide interventions.

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