Household Food Security is Associated with Hypoglycemia Fear among Young Adults with Type 1 and Type 2 Diabetes and Parents of Youth with Type 1 Diabetes

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Objective: To evaluate the relationship between household food insecurity and fear of hypoglycemia in young adults with type 1 and type 2 diabetes, youth with type 1 diabetes, and their parents.
Methods

SEARCH for Diabetes in Youth Cohort
• Phase 4: 2015-2020
• Diabetes type: provider determined

Food Security was measured with the US Household Food Security Survey.
• ≥3 food insecure conditions or behaviors indicated food insecurity

Fear of Hypoglycemia was measured with the Hypoglycemia Fear Survey.
Two question sets: 1) Behaviors people may do to avoid hypoglycemia; 2) Worries concerning hypoglycemia
• Questions are summed for a behavior score, a worry score, and a total fear of hypoglycemia score
• Adult Survey
  • Total Fear Score (range: 0-132)
  • Behavior subscale score (range: 0-60)
  • Worry Subscale score (range: 0-72)
• Youth and Parent of Youth Survey
  • Total Fear Score (range: 0-100)
  • Behavior subscale score (range: 0-40)
  • Worry subscale score (range: 0-60)

Statistical analysis: General linear models
Results and Interpretation

- Adults with diabetes, and parents of youth with type 1 diabetes, who had household food insecurity had higher fear of hypoglycemia scores than those who were food secure.
- Implementation of common approaches to ameliorate risk of hypoglycemia such as carrying snacks is problematic for people who are food insecure.
- Providers could consider food insecurity when discussing hypoglycemia and fear thereof with their patients.

<table>
<thead>
<tr>
<th>Association of Household Food Security with Hypoglycemia Fear Scores and Subscales in the SEARCH for Diabetes in Youth Cohort Study</th>
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</thead>
<tbody>
<tr>
<td><strong>Total Score</strong></td>
</tr>
<tr>
<td>β(SE)</td>
</tr>
<tr>
<td>Adults Type 1 (N=1283)</td>
</tr>
<tr>
<td>Adults Type 2 (N=320)</td>
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<tr>
<td>Youth Type 1 (N=592)</td>
</tr>
<tr>
<td>Parents Type 1 (N=592)</td>
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</tbody>
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*The models are adjusted for age, diabetes duration, sex, race/ethnicity, clinic, education, household income, insurance type, medication regimen, and continuous glucose monitoring use.*