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Home Matters: Adolescents Drink More Sugar Sweetened Beverages When They Are Available at Home

Christina F. Haughton  
University of Massachusetts Medical School

Molly E. Waring  
University of Massachusetts Medical School

Monica L. Wang  
Boston University

See next page for additional authors

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Presenter Information
Christina F. Haughton, Molly E. Waring, Monica L. Wang, Milagros C. Rosal, Lori Pbert, and Stephenie C. Lemon

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Sugar sweetened beverage (SSB) consumption has increased by 300% in 20 years and is the largest source of added sugar in US diets. SSBs contain added caloric sweeteners, are energy dense, and provide little to no nutritional value (sodas, fruit drinks, energy drinks, sport drinks, etc.). Adolescence is a period of growing autonomy, marked by increasing regulation of the individual's own behavior and decision making. The availability and accessibility of SSBs in adolescents' environment can influence their decisions and subsequent consumption. 54% of calories are consumed at home, suggesting the availability of SSBs in the home environment might be an important determinant of SSB consumption. The association of SSB availability across different environmental settings with adolescent SSB consumption is not well understood.

**STUDY OBJECTIVE**

- Examine the association between availability of SSBs at home and adolescent SSB consumption.
- Evaluate whether this association was consistent across school and school neighborhood SSB availability.

**RESULTS**

Characteristics of Study Sample From FLASHE N=1,494

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Weighted Percentage</th>
<th>Sex</th>
<th>Race/Ethnicity</th>
<th>Other</th>
<th>BMI</th>
<th>Parent Marital Status</th>
<th>School SSB Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
<td>49.8%</td>
<td>Female</td>
<td>White</td>
<td>BMI Underweight (&lt;5)</td>
<td>4.3%</td>
<td>Married/Coupled</td>
<td>SSBs Not Available in School (n=726)</td>
</tr>
<tr>
<td>15-17</td>
<td>50.2%</td>
<td>Male</td>
<td>Black</td>
<td>Normal (≥5 - &lt;85)</td>
<td>68.6%</td>
<td>Divorced/ Widowed/ Separated</td>
<td>SSBs Available in School (n=78)</td>
</tr>
</tbody>
</table>

Prevalence of Home Availability of SSBs and Adolescent SSB Consumption Behaviors

<table>
<thead>
<tr>
<th>SSB Availability</th>
<th>SSB Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSBs Available at Home</td>
<td>Adjusted OR (95% CI)</td>
</tr>
<tr>
<td>Never</td>
<td>Ref</td>
</tr>
<tr>
<td>Rarely/Sometimes</td>
<td>3.17 (3.16-3.18)</td>
</tr>
<tr>
<td>Often/Always</td>
<td>7.34 (7.32-7.37)</td>
</tr>
</tbody>
</table>

**CONCLUSION**

- Despite the availability of SSBs in school and school neighborhood environments, the home food environment remains an important determinant of adolescent SSB consumption.
- The study highlights the important role parents continue to play in adolescents’ SSB consumption through the drinks they make available in the home.

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**METHODS**

**Dataset: Family Life, Activity, Sun, Health and Eating (FLASHE) study**


- **Adolescent SSB Consumption** - NCI SSB screener: Non Daily Consumption (<1) / Daily Consumption (≥1)
- **Home SSB Availability** - Asked how often SSBs available in the home and categorized as: never / rarely or sometimes / often or always.
- **School Neighborhood SSB Availability** - Yes: At least one store within a 10-15 minute walk of school / No: zero stores in walking distance
- **School SSB Availability** - Yes: Presence of vending machines that sell sodas, salty snacks and/or candy / No: Absence of vending machines

**Analysis: Multivariable Ordinal Logistic Regression**

- Appropriate dietary analysis weights were applied.
- Model One – association between SSB Home availability and SSB consumption.
- Model Two - stratified by SSB availability in School.
- Model Three - stratified by SSB availability in School Neighborhood.
- Proportional Odds Assumption tested and met for all final models.

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