A Reliable Observational Tool to Measure Food and Beverage Marketing in Sport Settings

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Conflict of Interest

The COI disclosure statement was made and it is available on the abstract book.

No conflicts of interest to declare.
Outline

• Rationale
• Objective
• Tool Development
• Reliability Results
• Conclusions & Implications
Why study food marketing in sport settings?

- Risk factor for childhood obesity\(^2\)
- Restrict food marketing where children gather\(^2\)
- Food + physical activity = healthy halo\(^3\)
- Affects children’s food preferences and practices\(^1\)
Objective

To develop a **reliable** and **valid** environmental assessment tool to measure the nature and extent of food and beverage marketing in municipal recreation facilities
Tool Development

Business (Marketing)$^4$

Public Health$^5$

Marketing of food and non-alcoholic beverages to children

Exposure

Power

Impact on:
- Food preferences
- Purchase requests
- Consumption patterns
Tool Development

The MAT measures:
- **Number** of promotions
- Food-related *products/brands/retailers* promoted
- Whether the promotion was **directed to children**
- Whether the promotion was related to **sports**
- Physical **size** of the promotion

Assesses marketing in:
1. **Food Service areas**
2. **Sports** areas
3. **Other** areas
The Marketing Assessment Tool

### Section 2 - Entrance, Reception Area & Hallways

<table>
<thead>
<tr>
<th>Location</th>
<th>Product(s) or brand(s) advertised</th>
<th>Child-directed?</th>
<th>Sports-related?</th>
<th>Size of advertising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility pamphlets or brochures</td>
<td>1.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No food/bev ads</td>
<td>2.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility televisions</td>
<td>1.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No food/bev ads</td>
<td>2.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Welcome desk</td>
<td>1.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No food/bev ads</td>
<td>2.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>No applicable</td>
<td>3.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
<tr>
<td>Walls/ floors</td>
<td>1.</td>
<td>Yes</td>
<td>No</td>
<td>S M L</td>
</tr>
</tbody>
</table>

WHERE?  WHAT?  HOW?
Inter-Rater Reliability Testing

- 2 independent raters
- 5 facilities
- Photos taken and used to verify answers
- Inter-rater reliability tested:
  - Percent perfect agreement
  - Categorical variables: Unweighted Cohen’s Kappa coefficient\textsuperscript{6,7}
  - Continuous variables: Intra-class Correlations\textsuperscript{6,8}
## Inter-Rater Reliability Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent Agreement</th>
<th>Kappa / Intra-class Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID marketing</td>
<td>92%</td>
<td>Kappa=0.88*</td>
</tr>
<tr>
<td># of marketing instances</td>
<td>61%</td>
<td>ICC = 0.95*</td>
</tr>
<tr>
<td>Product marketed</td>
<td>100%</td>
<td>Kappa=1.00*</td>
</tr>
<tr>
<td>Child-directed</td>
<td>100%</td>
<td>Kappa=1.00*</td>
</tr>
<tr>
<td>Sports-related</td>
<td>99%</td>
<td>Kappa=0.94*</td>
</tr>
<tr>
<td>Size</td>
<td>92%</td>
<td>Kappa=0.85*</td>
</tr>
</tbody>
</table>

*statistically significant at p<0.001
Conclusions & Implications

The Marketing Assessment Tool:

1. is reliable
2. is adaptable
3. can inform effective policy interventions to restrict children’s exposure to powerful unhealthy food and beverage marketing
Funding

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References


7. Landis JR, Koch GG. The measurement of observer agreement for categorical data. biometrics. 1977:159-74.