Childhood Obesity: Parental Self-Efficacy and Perceived Barriers for Fruit and Vegetable Consumption

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Introduction
- Childhood obesity currently affects 17.1% (12.7 million) US children aged 2-19 (Ogden, Carroll, Kit, & Flegal, 2014).
- Childhood obesity is of concern because of both its immediate as well as long-term effects on the well-being of a child.
- Cardiovascular
- Metabolic
- Pulmonary
- Gastrointestinal
- Skeletal
- HTN
- Diabetes
- Dyslipidemia
- Obesity adult
- Premature mortality
- Adult mortality

Causes and contributing factors of childhood obesity have been well mapped-out, but the need for more effective interventions persists.

There is evidence that interventions focusing on restriction of foods are counterproductive (Clark, Goyder, Bissell, Blank, & Peters, 2007). Fruits and vegetables are foods that need to be encouraged and that most children continue to consume in suboptimal amounts.

Changing parental behaviors in the home environment has been identified as an important goal, particularly during the pre-school age of the child when basic nutritional habits and preferences are established.

The Health Belief Model provides a theoretical framework through which parental behavior change can be understood (Glanz, Rimer, & Viswanath, 2008).

Hypotheses

Hypothesis 1: There is a relationship between child fruit and vegetable intake and weight status.

Hypothesis 2: There is a relationship between parental perceived barriers for providing fruits and vegetables and child weight status.

Hypothesis 3: There is a relationship between parental self-efficacy for providing fruits and vegetables and child weight status.

Hypothesis 4: There is a relationship between parental perceived barriers for providing fruits and vegetables and child fruit and vegetable intake.

Hypothesis 5: There is a relationship between parental self-efficacy for providing fruits and vegetables and the child fruit and vegetable intake.

Methods

- Fruit and Vegetable Habits Questionnaire
- Child BMI & Weight Status Category
- Data Analysis: SPSS

Results

<table>
<thead>
<tr>
<th>Variables</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Barriers</td>
<td>Self-Efficacy</td>
<td>4.33</td>
</tr>
<tr>
<td>Highest perceived barrier</td>
<td><em>I don't have time to cook vegetable dishes</em></td>
<td></td>
</tr>
<tr>
<td>Lowest perceived barrier</td>
<td><em>I am confident that my child will eat fruit every day</em></td>
<td></td>
</tr>
<tr>
<td>Highest self-efficacy</td>
<td><em>I am confident that I can regularly prepare meals in which half the plate is vegetables and fruit</em></td>
<td></td>
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</tbody>
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Observations

- Perceived barriers score: 1 = low perceived barriers
- Self-efficacy score: 1 = low self-efficacy
- *Self-efficacy score: 1 = moderate self-efficacy

Conclusions

- A statistically significant relationship was found between parental self-efficacy and perceived barriers for providing fruits and vegetables at home and the fruit and vegetable intake of the children. This finding indicates that future interventions aimed at increasing the intake of fruit and vegetables may benefit from a focus on increasing parental self-efficacy and lowering the perceived barriers experienced in that population.

- No statistically significant relationship was found between a child's fruit, vegetable, and/or 100% juice intake and their weight status, despite previous research suggestion (Cullen et al., 2004; Rolls, Julia A. Ello-Martin, & Tohill, 2004; Roseman, Yeung, & Nickelsen, 2007). The small samples size and the limited nature of the intake questionnaire may not have been able to detect any possible relationships. Further studies are needed.

- Most dietary guidelines continue to include 100% fruit juice with whole fruit in the “fruit intake category. Excess juice intake has been associated with excess weight gain (Faith, Dennison, Edmunds, & Stratton, 2006; Wojciki & Heyman, 2012). Additionally, excess intake may mask suboptimal whole fruit intake, as found in this study. Clearer guidelines and messaging about the appropriate intake guidelines for juice are needed.

References


Additional Notes

- *Self-efficacy score: 1 = low self-efficacy
- *Self-efficacy score: 1 = moderate self-efficacy

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