The Influence of Feeding Practices in Child Care on Obesity in Early Childhood

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What Factors Influence Child Care Providers’ Feeding Practices?

- 49% of children are enrolled in child care centers
- They consume 1 – 5 “meals”
- Foods are studied, but not feeding
- Not much known about the mealtime practices
Research Goals

- Develop, implement and evaluate innovative programs
- National study of child care programs on dietary quality of meals & snacks
- Conduct descriptive environmental studies
- Evaluate methods to increase parental involvement, to change parental behavior, and to change the home environment
Factors Influencing Child Care Providers’ Feeding Practices

Objective: To acquire a realistic and accurate understanding regarding feeding behaviors, attitudes & beliefs, practices, and demographic descriptions of childcare providers.
The child lies within the center of his or her universe surrounded by the immediate environment (the micro system) which is surrounded by the environment at large (the macro system).
Study Design

- Literature review, stakeholder input, expert panel
- Formative research: Interviews with providers
- Observational data of (best) practices
  - Building Mealtime Environments & Relationships
- Pilot surveys
  - Cognitive interviewing
    - NonHispanic White, Hispanic, African American
    - Rural and urban
- Final survey
Formative Research

- Interviews with providers
  - How providers view mealtime: learning or break?
  - Concerns about children’s weight and eating
  - The extent to which they follow current guidelines
Purpose of Mealtime

- Meals are about nutrition first, but also other learning
- Snacks are mostly about getting enough to eat
- Learning to eat—mastering eating skills
- Learning social skills like conversation, sharing, etiquette
Providers generally support children’s abilities

- “So these children, they serve themselves and I was so overwhelmed. I was like, “You’re kidding me!” You know? When I got into this program, they served themselves. It’s a self-help program.”

- “They can do everything. Well, my kids can. “
  [Interviewee laughs.]
Other themes…

- Need for clean, safe and calm environment and for children to be satisfied
- Bad days are when children are still hungry, when they don’t like the food or they don’t have enough space
- Encouragement blurs into pressure
- Desire for more variety and more food
Parents have low expectations & knowledge

- “I think, you know, some are pretty adamant that we make sure that they don’t have their treat before they’ve eaten their other stuff and then some are more lackadaisical about it…they could care less.”

Providers are a little stuck because of what parents provide

- “You know…if that is in the lunchbox…that’s entirely up to the parent. If they want to give it to them…Obviously, that’s up to them… At least we tried…”
More findings...

- Providers’ responsibilities are many and complex—and they view their role in children’s eating and growth as being very important.
- Don’t consistently see a big role for themselves with overweight children, although all could identify children in their care who are overweight.
- Larger role for hungry children and thin children.
What is the provider role in children’s weight?

– “Gosh, that’s an interesting question. I’m trying not to laugh right now…Professionally, my role is to follow through with what is recommended and what is provided. Personally, as a citizen, to do what’s right if I see something that is not right. Whether that means reporting something or making a meeting…setting up a meeting with parents…or calling a professional, whatever. Making sure that something is looked at other than just by me….”
Guidelines That Aren’t Used

- Children are encouraged to participate in all aspects of mealtime (preparing & cleaning up).
- Adults teach children about nutrition at mealtime.
- Children are allowed to serve themselves.
- Adults eat the same food as children.
- Adults sit at the table while children are eating.
- A variety of foods are served that broaden children’s food experiences.
- Children are encouraged to taste all foods.
- Children are given child-sized equipment & utensils.
- Children are allowed to decide the amount of foods they eat.
- Food is carefully chosen, prepared and served to prevent choking.
About Feeding Children Staff Survey

- Current feeding practices
- Control in feeding
- Mealtime routines
- Barriers
- Providers’ eating & weight history
- Providers’ current eating & PA

34 items
137 responses
20 ± 7 min to complete
Sampling Design

- Database of all licensed child care centers in the 4 states (CA, CO, ID & NV)
- Rural, urban cluster and urban
- Stratified random sampling by state and census region
- Targeted 1600 directors and 8000 staff
Distribution of Questionnaires

- Introduction letter
- Questionnaires (& incentive) mailed
- 1st reminder after 1 week
- 2nd reminder after 2 months

Analyzed using SUDAAN to account for uneven sample distribution across states
Who responded to the survey?

- 40% response rate (1190 staff; 464 directors)
- 98% females; 39 y of age
- <25 to >200 children per center (50-100)
- 26% NAEYC accredited
- 5 days per week
- $2-$3.50/hr per child (4 y)
Provider Characteristics

- NHW: 58%
- Hispanic: 27%
- Black: 7%
- Asian: 5%
- Other: 3%
Provider Characteristics—Education

- 22% <=High school
- 41% Some college/CDA
- 16% Associates Degree
- 21% BS or more

Trainings
- CD 92%
- Nutrition 70%
- Feeding 48%
- Licensure 76%
<table>
<thead>
<tr>
<th>BMI</th>
<th>(%)</th>
<th>Self-Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;18.5</td>
<td>2.6</td>
<td>6</td>
</tr>
<tr>
<td>18.5-24.9</td>
<td>46.5</td>
<td>37</td>
</tr>
<tr>
<td>25-29.9</td>
<td>27.0</td>
<td>34</td>
</tr>
<tr>
<td>&gt;30</td>
<td>23.8</td>
<td>22</td>
</tr>
</tbody>
</table>
Feeding Practices That Are “No Nos”

- Emotional uses of foods
- Coercion & Bribes
- Forcing—trying, finishing, how much
- Denying foods
- Punishment
Strategies Used (Often – Always)

- Offer food to sad children
- Use food to get children to do things
- Clean plate
- Encourage children to eat right amount
- Finish healthy foods before sweets

% providers endorsing

About Feeding Children
## Practices that work well for getting children try new foods

<table>
<thead>
<tr>
<th>Practice</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having a “one bite” rule</td>
<td>38%</td>
</tr>
<tr>
<td>Keeping them from having sweet foods until they try the new food</td>
<td>30%</td>
</tr>
<tr>
<td>Not having seconds of other foods until they try the new food</td>
<td>23%</td>
</tr>
<tr>
<td>Having the new food on the table and letting children decide</td>
<td>30%</td>
</tr>
</tbody>
</table>
In past 6 mo how many had children from families w/o enough to eat?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>7</td>
</tr>
<tr>
<td>A few times a week</td>
<td>10</td>
</tr>
<tr>
<td>Each week</td>
<td>5</td>
</tr>
<tr>
<td>2-3 times per month</td>
<td>5</td>
</tr>
<tr>
<td>1-2 times per month</td>
<td>11</td>
</tr>
</tbody>
</table>
When a child is from a family that doesn’t always have enough food

- 72% make sure the child gets “all the food they want” at the center
- 97% try to make sure the child gets enough “healthy food” during the day
Children who do not want to stop eating

- Send them away from table
- I tell them they can't have more
- I tell them they can't have some foods
- Distract them
- Tell them to consider other children
- Ask if they are full

% providers endorsing
When children are very thin

I know they will eat as much as they need 87%
I serve them more food 11%
I offer more of the foods they like 56%
I praise them to get them to eat more 56%
Do providers respond differently to normal weight & overweight children?

<table>
<thead>
<tr>
<th>Question</th>
<th>Normal (%)</th>
<th>Over (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>When children do not want to stop eating…</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I tell them they can’t have any more to eat</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>I tell them they can’t have more of some foods</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>I send them away from the table</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>I try to distract them</td>
<td>29</td>
<td>33</td>
</tr>
<tr>
<td>I explain that they need to leave enough for others</td>
<td>49</td>
<td>48</td>
</tr>
</tbody>
</table>
Factor Analysis of AFC Survey

50 responses on feeding practices
3 factors extracted (35 items)

- Getting Children To Eat Properly
  - Controlling amounts, order, sweet foods, emotional
- Getting Children to Stop Eating
  - Methods to get the normal and overweight child to stop
- Promoting Children’s Self-regulation
  - Asking normal and overweight children about internal cues

Low Score = Low Control
Provider Characteristics & Factor Scores

- **Age**: The older providers were, the lower their factor scores
- **Years of experience**: The more years of experience, the lower their factor scores
- **Weight**: Obese providers scored lower
- **No relation to race/ethnicity**

*Low Score = Low Control*
Training and Education Make a Difference

- **Higher education** = lower scores
- **More training** (in child development, nutrition, or feeding children) = lower scores
- Hours for Licensure did not relate to factor scores

Low Score = Low Control
Conclusions

- Stricter standards are being suggested for the foods offered in child care. Little focus placed on feeding practices and training for staff.

- Education and training appear to have a positive impact on feeding practices.

- Major obstacles include foods provided in lunch boxes, children who experience hunger, developing best practice for “encouraging” healthy eating.

- Child care staff report interest in playing a role in preventing childhood obesity and are positioned to be powerful allies.
Why it’s hard...

- Children are encouraged to participate in all aspects of mealtime (preparing & cleaning up).
  - Letting children help prepare food all the time is hard—it’s too much effort to have them do it at every meal. It would be a health hazard to have them in the kitchen. “I can do it but it’s too hard to train the other teachers.” And if children don’t like to clean up what can you do?

- Adults teach children about nutrition at mealtime.
  - It’s hard to teach children about nutrition. I say that “vegetables are good for you.” But I get kids who say “I don’t eat that at home so why should I have to eat it here.” There should be more training on that because there’s not a whole lot of stuff about it.”
Children are allowed to serve themselves.

- It’s a lot of extra work to help them learn—a lot more attention. They serve themselves too much and then don’t eat it. When it takes more time, other children who are waiting get anxious. If the kids are acting up it’s just better to do it yourself. The children don’t have a choice—it’s defined by how much we have. If you give them more they’re happy, you know? They have too much fun serving and don’t want to quit.

Adults eat the same food as children.

- It’s hard to eat the same food as children when the food isn’t presentable. It’s hard for me because of my tastes.
Why it’s hard…

- Adults sit at the table while children are eating.
  - Adults sitting at the table—sometimes you have to get up. For breakfast, since kids come in at all different times, this is hard. Tables are too crowded. We can’t just sit down and relax, we’re busy.

- A variety of foods are served that broaden children’s food experiences.
  - Variety of food is limited by cost and availability. It’s hard to justify spending the money if they aren’t going to eat it. Sometimes, families’ beliefs impede a child’s opportunities to taste foods—whether or not he/she wants to isn’t the issue. If they don’t eat what’s offered you have to find something they will eat. We have 6 week food menus.
Why it’s hard…

- Children are allowed to decide the amount of foods they eat.
  - It’s hard to let children control how much they eat when they only want to eat bread. It’s hard to let a child decide not to eat. Their parents will blame you if they don’t eat.

- Children are encouraged to taste all foods
  - “Children just don’t like vegetables. They say ‘teacher, you eat it’ and that’s really hard.” I’ll just say “why don’t you take a rat-bite?” I’m sure I don’t force but do I encourage enough? It’s especially hard with the babies: if they don’t like it they just spit it out. The children are spoiled and they will cry until they’re done and then they’ll taste it.
Provider Weight & Weight History

- Obese providers scored higher than normal weight providers
- Those currently trying to lose weight scored lower
- Those who were dissatisfied with their weight (currently or as a child) scored lower
- Providers who experienced tense mealtimes scored lower

Low Score = Low Control
## Median hourly earnings of child care services, May 2004

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Child care services</th>
<th>All industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>General managers</td>
<td>$23.78</td>
<td>$37.22</td>
</tr>
<tr>
<td>Education administrators</td>
<td>16.01</td>
<td>17.18</td>
</tr>
<tr>
<td>First-line supervisors/managers</td>
<td>11.70</td>
<td>14.59</td>
</tr>
<tr>
<td>Preschool teachers, except special education</td>
<td>9.34</td>
<td>10.09</td>
</tr>
<tr>
<td>Office clerks, general</td>
<td>9.12</td>
<td>10.95</td>
</tr>
<tr>
<td>Janitors and cleaners</td>
<td>8.04</td>
<td>9.04</td>
</tr>
<tr>
<td>Cooks, institution and cafeteria</td>
<td>7.93</td>
<td>9.10</td>
</tr>
<tr>
<td>Child care workers</td>
<td>7.34</td>
<td>8.06</td>
</tr>
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Interviews with Providers

Seek information on issues about which we were unclear or where there is provider ambivalence

1 hour interviews
- Demographic information
- Mealtime environment
- Mealtime roles
- Perceptions of children’s weight
- Eating history
- Guidelines—what they do and what is hard to do
Provider Characteristics

**Ethnicity**
- 58% NHW
- 27% Hispanic (90% English as 1st language)
- 5% Black
- 3% Asian
- 7% American Indian or Alaska Native & Other

**Education**
- 21% high school or less
- 40% some college to CDA
- 16% Associates Degree
- 22% BS or higher
What do parents think you should do?

Parents… I like to be very open as far as letting the parents come in… have lunch with us. I want them just to kind of feel like it’s an extra room in their house… they can come in anytime. And I tell them, “Some days it will be chaotic, some days it will be perfect.”

I think, you know, some are pretty adamant that we make sure that they don’t have their treat before they’ve eaten their other stuff and some are more lackadaisical about it… they could care less… Obviously, that’s up to them. At least we tried, so…
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- Currently dieting: 58%
- Weight satisfaction: 15% (37% OK)
- Physical activity: 53%