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Social, behavioral and environmental influences on Hispanic children food consumption: The role of fathers

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Fathers feeding practices



- Food parenting research has traditionally focused on mothers
- Much less is known about fathers and the food parenting practices they employ
- Data indicate that residential fathers are involved in food parenting with 72% feeding their children (under 5 years), decreases as the child age.

Why fathers?



- Positive father-child relationships are associated with positive child outcomes.
- Fathers' involvement in child rearing is an important source of family influence on child socialization.
- Father's weight, parenting skills, and feeding practices may each impact child health outcomes, independently of maternal factors.

Stahschmidt M et al Chil Youth Serv Rev 2013, Rongfang J & Scvhoppe-Sullivan S, Dev Psych 2011, Fraser J et al Fathering, 2011

African-American and Hispanic children's beverage intake:

Differences in associations with desire to drink, fathers' feeding practices, and weight concerns

Lora KR, Hubbs-Tait L, Ferris AM, Wakefield D.
Appetite. 2016 Dec 1;107:558-567



Methods

- African-American (n=49) and Hispanic (n=61) fathers of 2-to-5-year-old children
- Inclusion criteria:
 - Biological fathers
 - Responsible for feeding the child (5x/week)
 - Child without special dietary needs or developmental disabilities
- Recruitment: Day cares, churches, and community health clinics located in low-income areas

Methods

- **Feeding practices**
 - Preschooler Feeding Questionnaire¹
 - Comprehensive Feeding Practices Questionnaire²
- **Child Eating Behavior Questionnaire³**
 - Desire to drink subscale
- **Child beverage intake**
 - Beverage Intake Questionnaire for Preschoolers (BEVQ-PS)⁴

¹Baughcum et al, Maternal feeding practices and beliefs and their relationships to overweight in early childhood. J Dev Behav Pediatr. 2001, 22(6):391-408,

²Musher-Eizenman D and Holub S. Comprehensive Feeding Practices Questionnaire: validation of a new measure of parental feeding practices. J Pediatr Psychol. 2007, 32(8):960-72

³Wardle J et al. Development of the children's eating behavior questionnaire. J Child Psychol Psychiatry. 2001, 42(7):963-70

⁴Lora K et al Assessing Initial Validity and Reliability of a Beverage Intake Questionnaire in Hispanic Preschool-Aged Children. J Acad Nutr Diet. 2016,116(12):1951-1960



Methods

- Height and weight measures
- Fathers and children
 - Body Mass Index (BMI) calculated for fathers
 - BMI z-score calculated for child

Father's feeding practices, concerns, child desire to drink and child beverage intake

Table 2
Father's feeding practices, child desire to drink, and child beverage consumption.

Variables	Entire sample n = 110		African-American n = 49		Hispanic n = 61		df	p ^a
	M ± SD		M ± SD		M ± SD			
<i>Feeding practices</i>								
Difficulty in child feeding	2.5 ± 0.8		2.5 ± 0.8		2.5 ± 0.9		108	0.922
Concern about the child being overweight	1.8 ± 0.7		1.6 ± 0.5		2.1 ± 0.8		101.6	<0.000
Use of food to calm	1.8 ± 0.7		1.9 ± 0.8		1.7 ± 0.7		108	0.095
Concern about the child being underweight	2.2 ± 1.2		1.8 ± 0.9		2.4 ± 1.3		107.3	0.004
Use of food as reward	2.9 ± 1.0		2.8 ± 1.0		2.9 ± 1.1		108	0.649
Child desire to drink	3.1 ± 1.1		3.3 ± 1.0		3.0 ± 1.2		108	0.156
<i>Child beverage consumption (fl oz.)</i>								
	M ± SD	Median (IQR)	M ± SD	Median (IQR)	M ± SD	Median (IQR)		
Total sugar-sweetened beverages	11.2 ± 14.5	7.1 (3.2–15.0)	15.1 ± 19.2	10.2 (5.4–15.5)	8.1 ± 8.2	5.4 (2.4–10.6)	62.01	0.021
Sweetened juice drinks	4.7 ± 5.9	1.9 (1.1–1.9)	5.7 ± 6.7	3.6 (1.8–7.5)	3.9 ± 5.1	1.8 (0.7–5.0)	88.1	0.048
Sweetened carbonated drinks	2.1 ± 3.1	1.1 (0.3–2.7)	2.6 ± 3.6	1.1 (0.0–2.7)	1.7 ± 2.5	1.1 (0.3–2.0)	82.1	0.662
Other (flavored milk, sweet tea, sports drinks)	4.4 ± 8.3	1.8 (0.0–5.0)	6.7 ± 11.1	3.6 (0.7–7.0)	2.5 ± 4.2	1.1 (0.0–2.7)	59.2	0.015
Fruit juice	7.8 ± 6.5	5.4 (2.7–15.0)	8.0 ± 7.2	5.4 (2.7–10.0)	7.6 ± 6.0	5.0 (3.6–15.0)	108	0.756
Water	13.2 ± 7.2	15.0 (6.0–15.0)	13.5 ± 8.2	15.0 (6.0–22.5)	13.1 ± 6.2	15.0 (6.0–15.0)	87.8	0.799

Note. IQR refers to interquartile range.

^a p value for difference based on t-test.

Associations of father's feeding practices, concerns and child desire to drink with children's beverage intake

Table 3
Fathers' feeding practices and child eating behavior associated with child intake of beverages in African-American and Hispanics.^a

Models and variables	Total SSB		Fruit juice		Water	
	African-American	Hispanic	African-American	Hispanic	African-American	Hispanic
	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)	β (SE)
Model 1						
Difficulty in child feeding	0.26 (0.20)	0.33 (0.18)*	0.15 (0.14)	0.09 (0.14)	-0.12 (0.10)	-0.09 (0.07)
Child desire to drink	0.52 (0.18)***	-0.10 (0.09)	0.44 (0.13)***	0.11 (0.11)	-0.06 (0.08)	-0.03 (0.05)
Model 2						
Concern about the child being overweight	-0.09 (0.24)	0.02 (0.18)	0.37 (0.25)	0.03 (0.16)	0.05 (0.19)	0.17 (0.10)
Child desire to drink	0.55 (0.19)***	-0.06 (0.11)	0.49 (0.13)***	0.12 (0.11)	-0.07 (0.08)	-0.07 (0.05)
Model 3						
Use of food to calm the child	-0.15 (0.15)	0.83 (0.31)***	0.19 (0.15)	0.07 (0.17)	-0.15 (0.10)	0.06 (0.10)
Child desire to drink	0.61 (0.20)***	-0.15 (0.09)	0.41 (0.13)***	0.11 (0.11)	-0.04 (0.09)	-0.06 (0.05)
Model 4						
Concern about the child being underweight	0.01 (0.13)	0.27 (0.12)**	0.07 (0.10)	-0.07 (0.08)	-0.004 (0.09)	-0.02 (0.05)
Child desire to drink	0.56 (0.19)***	-0.11 (0.09)	0.46 (0.13)***	0.15 (0.11)	-0.08 (0.08)	-0.04 (0.06)
Model 5						
Use of food as reward	0.26 (0.16)	0.44 (0.15)***	0.06 (0.10)	0.06 (0.10)	-0.05 (0.09)	-0.03 (0.06)
Child desire to drink	0.50 (0.18)***	-0.10 (0.09)	0.45 (0.13)***	0.12 (0.11)	-0.07 (0.08)	-0.05 (0.05)

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

^a Multivariate adjusted regression models with dependent variables log-transformed; β estimates in table are $\exp(\beta)-1$. Models were adjusted for federal nutrition assistance participation, education, relationship status, and child BMI percentile. Degrees of freedom for regression coefficients for the two samples are 1, 50 (Hispanic) and 1, 42 (African-American).

Summary

- African American fathers feeding practices were not associated with child intake of beverages
 - Child desire to drink was associated with the child's intake of total sugary beverages and fruit juice
- Hispanic fathers feeding practices and concern about the child being underweight were associated with the child's intake of total sugary beverages



Hispanic Mothers' Views of the Fathers' Role in Promoting Healthy Behaviors at Home: Focus Group Findings

Lora KR, Cheney M, Branscum P.
J Acad Nutr Diet. 2017 Jun;117(6):914-922.

Methods

- Hispanic mothers (n=55) of 2-to-5-year-old children participated in 9 focus groups
- Recruitment: churches, community agencies, preschools
- Socio demographic data

Theme 1: Fathers disagreement with mothers about food preferences and preparation

Theme 1: Fathers' disagreement with mothers about food preferences and preparation	Representative quotes
Traditional expectations about the type of foods to eat and portion sizes	<p><i>"And if you give them cereal for dinner, you are lazy. I do it so that I don't gain weight and he says it is because I am lazy. It is very difficult. And my husband has to eat with hot peppers and everything."</i> (Focus group 1)</p> <p><i>"So at night, he tells me to make him some quesadillas. And I tell him, but I made soup, I made a stew, made rice, do you have to eat quesadillas every night? I tell him I used to like quesadillas but I don't know why I have to make quesadillas every night. I tell him, you can eat something else and he wants just quesadillas, true. Every day, every night and so I think that influences how I feed my girls and their mealtimes."</i> (Focus group 8)</p> <p><i>"My husband... well he is really chubby. When I married him, he was used to my mother-in law cooking, like tortillas and flour, and lots of red meat every day... I felt bad because I do not eat meat, I eat cooked squash or something like that, and my husband is used to food cooked with lard and fried and I do not. These are habits like she [another participant] says that come from our ancestors and my husband still wants to eat that type of food."</i> (Focus group 2)</p>
Tempting mothers to eat against their wishes	<p><i>"...and husbands don't understand about diets...and even when you don't want anymore, they say, come on just a little bit. And I don't have to eat at night anymore and they are like sit with me to keep me company. And it makes my mouth water. I tell him, I can't eat at night, if you know how I have my sugar."</i> (Focus group 2)</p>

Theme 2: Fathers' support for child healthy eating

Theme 2: Fathers' support for child healthy eating	
Support: Use of modeling behaviors to feed children fruits and vegetables, prepare healthy meals, and involve children in grocery shopping	<p><i>“What my husband does is to take them fishing. He takes them fishing so they go running outdoors, and what he does is to give them fruit, and salads, because my kids love salads, and [he] cooks baked chicken nuggets and he chops it and adds it in the salad. And that way he has food to take with him for the children.”</i> (Focus group 2)</p> <p><i>“My husband takes them shopping to buy fruits, greens... they wash them and prepare them and eat them together.”</i> (Focus group 7)</p>
Lack of support: Use of food for emotion regulation or displaying an indulgent parenting style	<p><i>My husband likes to spoil them. If he [child] wants a churro and sometimes we are home and it is late, and sometimes so that he [child] doesn't cry or for another reason, well he goes to the store and buys it for him.”</i> (Focus group 4).</p> <p><i>“Or when the boy wants chips when we come out of the doctor's office...[mother asking father] What do you buy a large bag for...Buy him a small one, the smallest one. And give it to him. And it is to just take the temptation away. Difference is that one is wrong: it is more convenient to buy him the large one, has more. But it is worse what he will eat. Buy him the small bag and that is it. There is no more, no more no more. But doesn't buy in large amounts.”</i> (Focus group 8)</p>

Theme 3: Fathers' support for child physical activity

<p>Theme 3: Fathers' support for child's physical activity</p>	
<p>Playing sports with children or asking children to help with household chores.</p>	<p><i>"In my case, my husband, since he likes to play soccer, he tells the children to come and play soccer with him if they are watching TV. And they go with their dad. Sometimes they even take the baby. They carry her and take her for a walk. Sometimes they also play with a ball."</i>(Focus group 9)</p> <p><i>"My husband also comes home after work and he asks the children to go outside to help or to play so that they are not inside watching TV."</i>(Focus group 9)</p>

Theme 4: Fathers' lack of support for a healthy food environment

<p>Theme 4: Fathers' lack of support for a healthy food environment</p>	
<p>Making high-calorie foods available in the home</p>	<p><i>"My husband sometimes buys boxes of frozen burritos and all those soups [referring to Maruchan^a ramen noodle soup], but I do not let them [children] eat because they know I do not like those foods."</i>(Focus group 6)</p> <p><i>"My husband works at the pizza place, forget it and I tell him not to bring pizza because if you keep bringing pizza for him, he will continue to gain weight. It is better not to bring him any more pizza. He says he will not bring him anymore and later, with the pizza, and the other one does not want anything with him and the little one is on the same path and I tell him no, don't bring him, he is doing good. He is not fat or skinny. I tell him don't bring him."</i>(Focus group 1).</p> <p><i>"Like my husband, he picked up the groceries. He came with who knows how many cokes and think I don't know why [he] brought so many and I said why you want them for? [He says] well I will drink them. And I tell him: And you think you will drink them by yourself? I tell him, you bring food for your son, but you don't want him to continue like this. I tell him no, don't bring anymore. I tell him one thing, his son doesn't drink the water now..."</i></p>

Summary

- Participate in healthy behaviors (i.e. supporting children healthy eating and physical activity)
- Discourage healthy behaviors (i.e. being indulgent with food, bringing high caloric foods into the home, using food as reward)



What does the literature say?

- Fathers are interested in child feeding; however, they are involved in food parenting at lower levels than mothers^{1,2}
- Hispanic father controlling feeding practices associated with children less F&V, but reinforcement (praise) associated with more F&V intake³
- Hispanic fathers display indulgent styles^{4,5}
- Hispanic fathers use emotional, instrumental feeding⁶
- Hispanic fathers support child healthy eating but bring unhealthy foods to the home⁶

¹Davison K et al, 2020, ²Jansen E et al, 2018, ³Parada H et al, 2016, ⁴Lindsay A, 2018, ⁵Lora K et al, 2016, ⁶Lora K et al, 2017.

Literature is lacking information on....

- Limited number of qualitative studies have explored fathers feeding behaviors with their young children
 - Still need to know contextual factors (i.e. social, economic resources) that may influence fathers' food parenting practices with their young children.
- Limited number of qualitative studies have explored views of fathers and mothers' food and physical activity co parenting behaviors at home (i.e., division of responsibility with the child's mother, support and solidarity in their parenting efforts, conflicting practices).
 - Contextual factors



Hispanic Fathers Feeding Practices and Feeding Co- Parenting Behaviors

Objectives

1. Examine facilitators of and barriers to Hispanic fathers' ability to engage in nutrition-and-physical-activity-related parenting behaviors.
2. Examine Hispanic fathers' perceptions of the co-parenting dynamics between them and the child's mother related to feeding and physical activity practices with their children.

Methods

- Hispanic mothers and fathers (n=21 couples) of 3-5-year-old children
 - Fathers data presented
- Inclusion criteria:
 - Biological parents, cohabitating couple
 - Household eligible for participation in federal food assistance programs
 - Parents eat meals or snacks with the child at least 5 times a week.

Methods

- Qualitative interviews conducted separately
- Demographic information
- Feeding Co-Parenting Scale¹ (1=strongly disagree, 5=strongly agree)
- Gender Based Attitudes Toward Marital Roles² (1=strongly disagree, 4=strongly agree)

¹Tan C, Lumeng J, Miller A, Development and preliminary validation of a feeding coparenting scale. *Appetite* 2019, 139: 152-158

²Hofman L and Kloska, D. Parent's gender-Based Attitudes Toward Marital Roles and Child Rearing, 1995, *Sex Roles* 32:5, 273-295

Results



- Mean age: 40 years
- All fathers were born outside of the U.S.
- Mean years of residency in the U.S.: 17.6 years
- 81% preferred to speak Spanish or Spanish better than English
- 62% completed high school or less
- 90% identified themselves as married or partnered

Theme 1: Fathers Feeding Practices

Home food availability	
<i>Making healthy food available</i>	<i>"We are always buying the best, let's say for our own good we buy a lot of lettuce, a lot of vegetables, a lot of cauliflower, also a lot of cucumber, cucumber with salad, beans, chicken, we also like fish a lot, a lot good things."</i>
<i>Making unhealthy food available</i>	<i>"For the house, what I bring are cookies, candy, cookies and donuts...About two, three months ago, I brought a box of donuts that they sell in the market...but my son was the one who asked for that, he told me donuts with a transparent box!"</i>
Being indulgent with food	
	<i>"Well, sometimes I give them snacks here. Well, in that aspect, in that aspect, sometimes, like everything, I'm a bit soft. Sometimes my son tells me, dad I feel like I want a donut. So my wife sometimes tells me not to buy him anything. So I say a little donut doesn't hurt. I'm going to buy you one and you eat half right now. Or he tells me dad I want an ice lollipop. Well, but it is not always that I am going to buy a bag of goodies and until you are full or buy you churritos."</i>
Food modeling	
	<i>"Sometimes when my wife cooks a food that I do not like... I say I am not going to eat it. Then my daughter says I don't want to eat it either. My wife cooks a dish that is like spaghetti with grated vegetables. I don't like it anymore, but I have to eat it because if I say that I don't like it then the child will say if dad won't eat it then I will not eat it. So I try to eat it"</i>

Involvement in child feeding

Feeding the child healthy foods and beverages

“Everything healthy is given to her like boiled vegetables and another day we give her something else. She likes more than anything to eat carrots, broccoli and cucumber and the rest so that she digests it faster as "mash" as they say. Yes she eats what we give her, the food that we eat, but more than anything we give her vegetables.”

Reasoning with the child about food to eat

“I think it’s better if there’s a reason. To the child you have to say why and explain or give something different than what they want to eat, to support the child, because it shows the child an example why you can’t do it.”

Rules about amount and type of food the child should eat

“But sometimes for example, when we go to eat out, we go to the buffet. He likes, for example, only pizza. Because we never go out to eat pizza. We’ll go to a pizza place and he wants to eat only pizza. We give him a little pizza, we put a little chicken breast, broccoli. And if he says, I don’t want broccoli, he doesn’t have the option to decide.”

Recognizing child hunger and satiety

“...And when we see that the girl doesn't want to eat not anymore, we always stop, we ask her if she wants to get some on her little plate, we do not force her.”

Theme 2: Fathers Food Traditions, Perception of Healthfulness of Traditional and Homemade Foods

Instilling consumption of traditional foods in the family	
	<i>"You know McDonald, all of that. I don't like them eating things like chips all the time, soda, that kind of thing. So I try to get them to take the food of my culture, my country."</i>
Healthfulness of traditional, homemade foods	
<i>Traditional, homemade foods are healthy</i>	<i>"For example, the arepa that we make is a roasted arepa, we make it very thick so that they only eat the shell. And they do not eat so much dough, it is not fried, it does not have anything. It is a completely good arepa, it is cooked on a griddle and it is roasted. The arepa is never going to hurt, that is, the arepa never hurts the stomach, so we always have our traditional food ."</i>
<i>Traditional foods eaten in excess are unhealthy</i>	<i>"I know sometimes they're not healthy because how do you say they have a lot of fat or sometimes breads have a lot of milk, and as I said, it's not like you're going to eat that all the time or every day, understand? "</i>

Theme 3: Fathers Cooking Skills Provide Balanced Food Choices

"I have learned to make rice, to make chicken as grilled meat, salmon, fry fish, salad, very different from how it is cooked there. These are things I have learned from the restaurant and I cook at home."

"I cook a little more than her. I make an Italian pasta. I do a Japanese meal too. I also make sushi ... I do special things, but most of the things I can make is with chicken, I make stewed chicken for the children."

Theme 4: Fathers Work, Schedules, Income Influence Food the Child Eats

"No, because sometimes, both she and I are busy, so I tell her: "I am going to order something, so that we eat, because there is no time for me to cook", because sometimes we are very busy doing things and we buy food for us and the children. Not all days but yes, sometimes. Almost every weekend."

"Yes ... it's work. For example, the chicken nuggets that she likes are processed and that you just have to heat them in the microwave ... so that's one way to feed her faster ... or instead of cooking something fresh that she can eat."

Results: Feeding Co Parenting Scale

Current Study (n=21)

Tan et al¹
(n=129)

Subscales	Mean \pm SD	Mean \pm SD
Shared Positive Views and Values in Child Feeding (i.e. My spouse/partner and I both see family mealtime as important)	4.15 \pm 0.73	3.98 \pm 0.71
Active Engagement in Child Feeding (i.e. In my household, my spouse/partner and I frequently discuss how we manage feeding tasks)	3.87 \pm 0.94	3.63 \pm 0.69
Solo Parenting in Child Feeding (i.e. I am responsible for all feeding tasks in my family.)	2.92 \pm 1.04	2.62 \pm 0.99

1=strongly disagree, 5=strongly agree

Results: Gender Roles

Some equality in marriage is okay, but by and large, the man should have the main say-so

A husband's job is more important than a wife's

It isn't always possible, but ideally the wife should do the cooking and the housekeeping, and the husband should provide the family with money.

For a woman, taking care of the children is the main thing, but for a man his job is.

Men should make the really important decisions in the family.

A man should help in the house, but housework and childcare should mainly be a woman's job.

1=strongly disagree, 4=strongly agree

Mean \pm SD = 2.24 \pm 0.83

Relationship between Feeding Coparenting Scale and Traditional Gender Roles

	Shared Views	Active Engagement	Solo Parenting
Traditional Gender-Role	0.19	-0.02	0.17

$p > 0.05$

Discussion

Feeding practices

- Similar to previous reported findings, fathers both make healthy and unhealthy food available to children, family and display an indulgent style
- Role modeling
- Engaging in feeding the child healthy foods
- Not pressuring the child to eat- recognizing child satiety

Discussion

Traditional foods

- Traditional foods are healthy but when eaten in excess they are not

Cooking skills

- Confidence in cooking skills, job experience facilitate learning

Barriers

- Time constrains, conflicted schedules, convenience

Discussion

Coparenting...initial results

- Fathers seem to agree to having shared views with their spouses about feeding the child
- Fathers seem to agree about communicating with spouses about child feeding and engage in feeding the child

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Discussion Questions

- What are child nutrition related areas in which co parenting behaviors need to be explored?
- What should be the next steps in research related to fathers co parenting behaviors?

Thank You!

