

# Concordance and Discordance of the Knowledge, Understanding, and Description of Children's Experience of Food Insecurity Among Hispanic Adults and Children

Edward A. Frongillo, PhD; Maryah S. Fram, PhD, MSW; Jessica L. Escobar-Alegría, PhD; Melly Pérez-Garay, MSc; Mark M. Macaуда, PhD; Deborah L. Billings, PhD

Food insecurity is highly detrimental for children, who experience food insecurity differently than do adults. We aimed to understand concordance and discordance of adults' and children's knowledge, understanding, and description of children's experience of food insecurity. In-depth interviews were conducted with the primary caregiver, another caregiver, and a child 9 to 16 years of age in 16 Hispanic families at risk of food insecurity in South Carolina. Adults often lacked knowledge of the food insecurity experiences of their children, which presents challenges for adults with roles as caregivers, educators, or policy makers to recognize and address these experiences.

**Key words:** assessment, children, families, food insecurity, Hispanics

**A**DULTS in US food-insecure families often try to protect children from being impacted by food insecurity,<sup>1-3</sup> and national monitoring data suggest that in general adults believe they are successful in doing so: based on adult reports in US annual monitoring data, nearly 1 in 5 US households with children is reported to experience food insecurity but less than 1% of children are reported by the same adults to experience cutbacks in dietary quality or quantity.<sup>4</sup> Other epidemiological data paint a different picture, with children in food-insecure households experiencing lower quality of diet and physical activity and greater behavioral and mental health problems, risk of suicide, experiences of shame, and poor school performance than their peers in food-secure households.<sup>5-15</sup>

Recent studies have attended directly to children's experiences of food insecurity, leading to 3

important new insights that may help explain these conflicting pictures. First, children experience food insecurity differently than do adults.<sup>16-18</sup> Adults experience food insecurity in 4 domains of quantity of food, quality of food, psychological, and social.<sup>2,5</sup> Children experience food insecurity across 2 domains: awareness of and taking responsibility for family food hardships.<sup>16</sup> Children are aware of family food hardships cognitively (knowing that food runs out, vigilance about food supply, and timing of food assistance benefits), emotionally (worry, fear, sadness, anger), and physically (hunger, tiredness).<sup>16</sup> Children also take responsibility for food hardships, participating in parents' strategies to make food resources last, initiating their own strategies, and generating food resources themselves.<sup>16</sup> Second, parents often do not know of children's experiences of food insecurity;<sup>19-22</sup> for instance, parents reported children experiencing hunger only about half the time that children themselves reported it in South Carolina<sup>19</sup> and Texas<sup>21</sup> and about half of parents and adolescents were discordant in reporting food insecurity in Oklahoma.<sup>22</sup> Third, these conflicting reports often flow from children's efforts to hide their experiences to protect parents from additional worry.<sup>16</sup>

These previous studies of children's experiences have focused predominantly on white and African American families, leaving gaps in knowledge about the rapidly growing US Hispanic population. Food insecurity is highly prevalent among the Hispanic population in the United States, particularly among those from Mexico, Central or South America, and Puerto Rico, and among noncitizens.<sup>4,23,24</sup>

**Author Affiliations:** Department of Health Promotion, Education, and Behavior (Drs Frongillo, Macaуда, and Billings and Ms Pérez-Garay), College of Social Work (Dr Fram), Core for Applied Research and Evaluation (Dr Macaуда), and Institute for Families in Society (Dr Billings), University of South Carolina, Columbia; and FHI 360, Washington, District of Columbia (Dr Escobar-Alegría).

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**Correspondence:** Edward A. Frongillo, PhD, Department of Health Promotion, Education, and Behavior, University of South Carolina, Columbia, SC 29208 (efrongil@mailbox.sc.edu).

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Hispanic adults, similar to adults in other racial-ethnic groups,<sup>25,26</sup> are at high risk of psychological distress<sup>27</sup> and experience unique stressors within the current political climate, which fuels policies and practices that further marginalize and stigmatize Hispanics, especially migrants and low-income people. Hispanic children may be expected to be as or more susceptible to harm from food insecurity, given the hardship and uncertainty experienced by many of their families. Information about adults' knowledge of children's food insecurity experiences in Hispanic families in the United States is therefore essential, both to develop accurate estimates of the number of children in need of food-related services and understand the nature of children's needs and to inform interventions to support parental efforts to protect children from food insecurity and promote child well-being.<sup>28,29</sup>

This study addressed 2 important questions among Hispanic children and families in the United States: How concordant and discordant were adults' and children's knowledge, understanding, and description of children's experience of food insecurity? What explained differences in concordance between adults' and children's reports of children's experience of food insecurity?

## METHODS

### Sample

We recruited a purposive sample of 16 South Carolina families at risk for food insecurity, who identified as Hispanic and were raising at least 1 child aged 9 to 16 years. We anticipated that this sample size of 16 families and 45 individuals would provide sufficient data to compare experiences among individuals within families based on our previous studies.<sup>16,19</sup> Although children as young as 6 years old can discuss experiences of food insecurity,<sup>17,19</sup> we interviewed somewhat older children who are most comfortable and able to discuss their experiences.<sup>16,19</sup> Families were recruited through the Greenville Health System and several food and nutrition services providers. We recruited families living in rural and nonrural areas that had been in the United States for 10 years or less and families of different compositions including married parents with and without extended family households. All adults interviewed were parents or primary caregivers of the children interviewed. Recruitment began with the agency or program staff providing initial study information to families that met the sample criteria. The staff then asked families for their permission to release contact information of interested parents to our research team. We then contacted families (by phone or in per-

son at the agency), provided additional information, and scheduled a time to conduct interviews with those who agreed to participate. In addition, we posted fliers in a range of locations (eg, agency lobbies, laundromats, libraries, and Hispanic grocery stores) so that interested families could contact us directly. Before beginning recruitment, we obtained approval from the University of South Carolina institutional review board for study fliers, explanatory letters, consent forms, child assent forms, and data collection instruments.

The final sample consisted of 16 families, including for each family (1) a child between 9 and 16 years of age (if more than 1 eligible child was present, we invited the child whose birthday was closest to January 1), (2) the mother or primary female caregiver who lived in the household if one was present, and (3) at least one other household adult if any were present, giving priority to the father or cohabiting father figure if present. In total, we interviewed 45 individuals, including 16 children, their primary female caregivers, and an additional cohabiting adult when possible. A native Spanish speaker originally from a Central American country conducted all interviews from May to July 2010.

### Data collection

Prior to data collection, a native Spanish-speaking team member translated the adult and child interview guides into Spanish. She worked with Spanish-speaking doctoral student volunteers to back-translate and make any necessary changes and to pilot the interviews to ensure conceptual equivalence, again making any necessary changes.

Written adult consent was obtained in the adult's preferred language, either at an agency where recruitment took place or at the beginning of a scheduled interview if the interview was scheduled through a participant-initiated phone call based on information in the fliers. Adults were given the consent forms for themselves and the Spanish and English consent form for their child to participate. Child interviews were scheduled through the adult after adult consent for the child interview was obtained. At the beginning of the child interview time, we obtained written assent from the child in her or his preferred language, either English or Spanish.

Individuals who agreed to participate in the study were interviewed one time using a semistructured interview format. Each interview lasted 30 to 75 minutes; all interviews were audio-recorded, and we interviewed family members separately in the same location to reduce any influence that family members, particularly children, may have felt

from each other. Once the parent was interviewed, assent was obtained from the child who then was interviewed by a female native Spanish speaker in a separate room with closed doors and no one else present.

The semistructured interview guides were constructed with the goal of generating rich information about household food norms, social interactions related to food and eating, household food management strategies, experiences of food scarcity and hardship, and the social and economic context in which food decisions and experiences took place. The guides also attended to the 3 subdomains of child awareness of food insecurity (ie, cognitive, emotional, and physical) and the 3 subdomains of child taking responsibility for food insecurity (ie, participating in adult strategies, initiating own strategies, and generating resources).<sup>16</sup> Both the child and adult guides included the following questions: Can you tell me about the last time you were hungry because there wasn't enough food to eat in your house? Has your family ever almost run out of food? Can you tell me about something you have done to try to help the food that your family has last longer?

Adult interviews were conducted using the adult interview guide as a basis for discussion but were conversational in style, with the interviewer expanding, following up, probing, and pursuing emergent themes as appropriate in the interview. Interviews also included administration of the US Household Food Security Survey Module to provide a standard quantitative measure of household food insecurity.<sup>4</sup>

Our child interview guide began with a question to create comfort and trust and gradually increased attention on food insecurity. We included questions on family food choices and interactions and finished with a dissipating question intended to help ensure that children ended the interview experience without feeling undue anxiety.

### Analysis

Interviews were transcribed verbatim by a native Spanish speaker and were then de-identified and coded using NVivo 8 qualitative analysis software (QSR International Pty Ltd, Melbourne, Australia; 2008). We combined thematic and open coding, beginning with codes for the 6 subdomains of child food insecurity established in prior research.<sup>16</sup> We then used a constant comparative method as we worked through the new data, establishing new codes or refining existing codes as necessary. Analyses were done in Spanish by a native Spanish speaker fluent in English, and selected text segments were translated into English so that the research

members who were not fluent in Spanish could participate, at least partially, in the analysis. Team members who were fluent in Spanish worked together to check codes.

To determine concordance and discordance of adult and child awareness of children's food insecurity, we first examined text coded under each of the 6 subdomains to determine the absence or presence of the domain as reported by each participant (ie, the child reporting his or her own experience of each subdomain, or the adult reporting the child's experience of each subdomain). Two researchers fluent in Spanish independently coded all data, and agreement of 80% was reached on the absence or presence of these subdomains; coding differences were then reconciled through face-to-face discussion. Finally, for each family, we compared adult and child reports for the absence or presence of each subdomain.

### Timeline

Interview guides were developed during spring 2010. Recruitment and data collection occurred during May, June, and July 2010. Analysis was conducted from August 2010 to March 2011.

## RESULTS

### Description of sample

The 29 adults interviewed in the 16 families comprised 15 mothers, 10 fathers, and 4 other caregivers. Eleven adults were male, 16 were female primary caregivers, and 2 were additional female adults in the family. All lived with the children who were interviewed, had some responsibility for their care, and were assumed to be knowledgeable about food issues faced by the children interviewed.

Ten of the 16 children interviewed were female. The mean age of the 16 children was 12.6 years. Four children were in elementary school, 7 were in middle school, and 5 were in high school. Two were the only child, 12 were the oldest, and 2 were a middle child in the families. Fourteen children received free school lunch and/or breakfast, and 1 child received reduced school lunch.

Nine of the families lived in a rural area; the other 7 lived in a nonrural area. Ten families were currently using the Supplemental Nutrition Assistance Program (ie, Food Stamps); 5 families were using the Special Supplemental Nutrition Program for Women, Infants, and Children; and 9 families received foods from charitable organizations. Based on mother (or female adult respondent) responses to the US Household Food Security Survey Module,

7 families had low food security, 8 had very low food security, and 1 had food security.

**Concordance and discordance between parent and child reports of food insecurity**

All 16 children experienced cognitive awareness of food insecurity. Eleven of the families had adults who knew that their child was cognitively aware of food insecurity; 7 fully knew and 4 partially knew (ie, one adult knew that the child was aware, but other adults did not know) (Table). In the other 5 families, adults did not know that their child was cognitively aware of food insecurity (Table). Fifteen children experienced emotional awareness, with 7 of these families having adults knowing that and 8 not knowing. Two children experienced physical awareness (ie, hunger), but for neither child did the adults in the family know of it. In total, across the 6 subdomains, of the 47 instances of children’s reported experiences of food insecurity, adults reported knowing about only 19 of them (40.4%).

For example, in a family in which the child experienced cognitive and emotional awareness, the child (a female, 11 years old, first of 2 children) said:

If they have enough money, they buy it [food] for me. I hear them talking “we are running out of food.” If we want a “tamal,” she [the adult caregiver] has the last one; I mean she gives us half. I feel sad because, I do not need ... but I really want....

In contrast, the adult caregiver said: “They did not understand, they are not affected. I give up to eat my food so that they can eat, I do this so they do not notice the difference. They are children they still do not notice.”

In another family in which the child experienced emotional and physical awareness, the child (female, 15 years old, first of 2 children) said:

When I am hungry I cannot control myself. I am so hungry that I get out of my mind. I’m confused, I’m

sorry.... Hunger pain, (mumbling) I get a bad stomachache because we do not have money of there is nothing to eat.... I get worried for my brother, because he is always eating. It does not really matter to me, because I can take it [food] at school, but he is always spending, I have to worry about him.

In contrast, an adult caregiver said: “I do not think it has affected them a lot, I do not think so, they are Ok.”

Five children participated in adult strategies to manage food insecurity, with only one of the corresponding adults knowing of it. Eight children initiated their own strategies, with no adults knowing of it. One child engaged in resource generation for food without the adults’ knowledge. For example, in one family in which the child generated resources, the child (female 12 years old, first of 3 children) said:

There was no money to buy food so we ate what we found, I ate applesauce, we needed to pay the power and water bills. We don’t eat snacks because my mom gets the money to last longer. My dad needed to use the money for the gas, but we were going to have breakfast, so I took my money and paid for them. Our neighbors give it [borrowed food] to us, because they get food, they have a lot of something, so they give it to us.

The adult caregiver said: “[At the store] they cry and that stuff, but afterwards they kind of understand, they are older now, and say ‘if there is no [money] there is no choice....’ But affected, no.”

In another family in which the child initiated his own strategies and generated resources, the child (male, 11 years old, first of 3 children) said:

Sometimes we are about to lose our apartment and I worry a lot, but then somebody comes and lends us the money to pay the rent and then I relax.... Sometimes I tell my sister not to drink a lot because is all we have and I serve her and myself. Sometimes I sell my toys.

**TABLE. Concordance and Discordance Between Adult and Child Reports of Child Food Insecurity in 16 Hispanic Families in South Carolina**

| Subdomain                    | Did Adults Know About Child's Experience? |                           |                     |
|------------------------------|-------------------------------------------|---------------------------|---------------------|
|                              | Children With Experience                  | Adults Knew               | Adults Did Not Know |
| Cognitive awareness          | 16                                        | 11 (7 fully, 4 partially) | 5                   |
| Emotional awareness          | 15                                        | 7                         | 8                   |
| Physical awareness           | 2                                         | 0                         | 2                   |
| Participation responsibility | 5                                         | 1                         | 4                   |
| Initiation responsibility    | 8                                         | 0                         | 8                   |
| Resource generation          | 1                                         | 0                         | 1                   |
| Total across 6 subdomains    | 47                                        | 19                        | 28                  |

In contrast, the adult caregiver said:

[When asked if the children are affected] well, it happens that when we are eating, one [child] says "I got more," or the other says "he is taking more" or "I did not get as much as he got" ... they argue about the food.... They have been affected in the way that they do not eat what they prefer.

### **Explaining differences in concordance between adult and child reports**

In most families in which children were aware of food insecurity and an adult or adults knew they were aware, adults and children talked directly about the family food situation. For example, one mother explained:

Yes, it affected her because when she saw that I was sick and the problems at home. I started to see, that the girl, she felt deeply worried. And I tried to help her and told her "sweetheart, these are difficult times but it will pass." I always speak positive to her. I told her that she should not worry that in life there are ups and downs, but we will overcome all this.

In another family, the father explained:

They know it well that when we can't, really we can't; but when we can we even get to have a fun day out, we eat pizza, a burger or something like that. We get along with it, we do not struggle. You know some kids throw a tantrum (saying): "I want, I want" and you have to buy what they want. My daughters don't do that, they understand it well. If we can't this week (I tell them): "You know what? This week we will not take one thing but the other. Next week we will take it." We always agree. They understand. It helped them to understand what values there are in life, to take advantage of the little you have.

Another father said in response to the question of whether the children ask for things:

Yes, they ask, but one makes them understand: "Look this week it [the pay] was low, and we have to pay for this," or "that you bought that" then there are other priorities, if one can, then they get it.

In other families in which children were aware of food insecurity and an adult or adults knew they were aware, adults and children did not talk directly about the family food situation, but children observed, as illustrated by a child (female, 15 years old, only child):

Well, they did not really tell me anything. But I noticed, because sometimes I wanted to make something and there was no (food for it) or my mom told my grandma if she could give her this or that (food), so it was clear to me, that we did not have (the ingredients) at home to make it.

In families in which children were aware of food insecurity and adults did not know they were aware,

3 explanations for the discordance emerged. One explanation is that adults thought that they were being discreet about the family food situation to protect children, but children observed (eg, heard or saw) signs of food insecurity. For example, one child (female, 11 years old, first of 2 children) said:

Sometimes I hear them talking while driving, they say "we have to buy this and we are running out of food" or they say "we do not have that much money and we have to do this and that, we have to save (money)."

Another child (male, 10 years old, first of 2 children) said in response to being asked how he knew there was no money: "Because we stop buying stuff that cost a lot, I knew we did not have much money and that they did not want to buy a lot of stuff."

Another child (female, 12 years old, first of 5 children) said in response to being asked what her parents do that makes her think they do not have money:

They look for two jobs. My mom makes lunches (to sell them) and with the lunches sold on the weekend she gets \$100.00, then she buys us stuff.... Sometimes they say that they want to go back to Mexico.

A second explanation is that children intentionally did not share their experiences or actions with adults. For example, a child (male, 9 years old, third of 6 children) said when asked whether he had done anything for the family to have enough food: "Sometimes I hide the food for my dad, because sometimes we eat food and my dad sometimes comes back late from work and sometimes I hide food for him."

A third explanation is that adults and children interpreted events differently in accordance with their roles in the family. For example, in one family in which the child's awareness of food insecurity was not known by the mother and the father, the mother said that children were not affected "because there is always food at least for them" and the father concurred saying that "we think of them first, and because they are children the food stamps are mainly for them."

## **DISCUSSION**

Adults in the families interviewed often lacked knowledge of the food insecurity experiences of their children, including experiences of cognitive, emotional, and physical awareness and children taking responsibility for food insecurity by participating in adult strategies, initiating their own strategies, or generating resources for food. Adults on average knew of only two-fifths of their children's experiences. These results corroborate previous studies among other populations in the

United States and Ethiopia that found poor concordance between adult and child reports of child food insecurity.<sup>19,22</sup> For example, only one-half of adults knew about child physical awareness (ie, hunger) in white and black families in South Carolina<sup>19</sup> and in Hispanic families in Oklahoma<sup>22</sup> and Texas border communities.<sup>20</sup> In the latter study, besides hunger, there was only slight concordance for 6 other food insecurity constructs and fair concordance for 1 construct.

In most families in which adults and children were concordant, adults and children discussed the family food situation so that children would understand the current hardship and, for some, learn how to manage hardship in general. Among families in which adults and children were discordant, 3 related explanations emerged: (1) children observed signs of food insecurity despite adults trying to be discreet about the family food situation; (2) children intentionally did not share their experiences or actions with adults; and (3) adults and children interpreted events differently. Underlying these 3 explanations are 2 intertwined forces, lack of communication and efforts of family members to protect each other, which, in turn, relate to roles of family members.

Family members act and interpret experiences based on their role in the families. Hispanic mothers typically see themselves as the food manager in the family, giving priority to feeding children over themselves, and as a caregiver with responsibility to protect children.<sup>30</sup> One mother said: “With this economy, work [opportunities] have decreased, and food is not the same. I can say this because I am the one in charge of all that. I have to reduce [the purchase of] some foods.” Another mother said: “I limit them [children], I buy less [food], I buy less so that it [money] lasts.” Fathers typically see themselves as provider and as a caregiver with responsibility to protect wives and children. One father said: “One feels pushed by the situation; money doesn’t last, it is not enough, and I have been pushed and affected by my children, because they are my priority. I try so that they don’t lack anything.” Another father said: “While I have money, I buy them [food they ask for] when I don’t have [money], I tell them ‘wait, be patient, next week I will be able to buy the food and I do it.’” Children are often active contributors to the family food situation and see themselves as having a role to protect other children and parents, including protecting parents in thinking that they are successful in protecting their children.<sup>16,31</sup> Both adults and children in this study acted in accordance with their understandings of these roles. Some adults thought it best to communicate with children about the family food situation, whereas others thought it best to try to be discreet about family

food insecurity. Some children did not communicate with adults about their own experiences of awareness of and taking responsibility for food insecurity, perhaps to either conceal their felt shame<sup>15</sup> or support parents’ thinking that they are successfully protecting their children.<sup>16,31</sup>

Adult reports of food insecurity are useful for monitoring and estimating the prevalence of household food insecurity in United States,<sup>4</sup> but assessment aimed at identifying and responding to the specific needs of children who are experiencing food insecurity should be based on children’s own reporting of their experiences that are substantially more accurate than adult’s reports of children’s food insecurity.<sup>19,32,33</sup> Our research group has developed and validated a short child report questionnaire for assessment of child food insecurity<sup>19</sup> and used it in collaboration with school personnel<sup>28</sup> and in epidemiological studies of the association of child food insecurity and behavioral outcomes.<sup>14</sup>

The 16 families in our study were Hispanic families in South Carolina who arrived within the 10 years before data collection, having experienced economic hardship and possible threat of violence. Adults worked in low-income jobs, and most likely had challenges with legal documentation (although we did not ask about this). The experiences of these families may be somewhat different from experiences of Hispanic families elsewhere in the United States. The in-depth interviews conducted with multiple family members for this study allowed for accurate classification of both adult and child experiences of food insecurity and knowledge about these experiences by other family members.<sup>19,34,35</sup> Furthermore, our investigation was grounded in understanding of child food insecurity derived from prior in-depth qualitative studies of children’s experiences.<sup>16,17</sup> Studies in Texas border communities and Oklahoma were different in that a closed questionnaire was used that incorporated the US Household Food Security Survey Module with adults and the US Child Food Security Module with children,<sup>20,22</sup> both of which are based on understanding of food insecurity experiences that derived originally from in-depth qualitative research with adults. Another study in Texas reported that families were reluctant to disclose food insecurity and preferred to ask for help with nonfood items (eg, clothes), but these guarded responses may have been because focus groups were used rather than individual interviews.<sup>36</sup>

Adults often are not knowledgeable about the food insecurity experiences of their children and therefore are not positioned to fully understand these experiences and consider how to respond to them. In this study, only 2 children experienced

physical awareness; adults did not know about these child experiences, but the low frequency suggests that adults were protecting most children from physical hunger. All children were cognitively aware of food insecurity, and all children except one were emotionally aware of it. Adults were more likely to know that children had cognitive than emotional awareness, suggesting that the stress of food insecurity and the accompanying feelings of anxiety, deprivation, alienation, and shame that may be so consequential to children's well-being<sup>7</sup> are likely to be unknown by adults. Furthermore, half of children had initiated strategies for managing food resources, with none of the adults knowing that they were doing this. Although adults may be confident in their roles as caregivers that they are protecting their children from physical hunger by making food for their children a priority, they often do not know that children are cognitively and emotionally aware of food insecurity and that children act to take responsibility for trying to solve food problems.

Over the 25 years since the United States began annually monitoring food insecurity, the prevailing view by adult caregivers—and the orientation of food assistance to alleviating hunger—remains that the consequences of food insecurity for children will be mitigated if enough food is provided to children.<sup>29</sup> Over that period, however, understanding of food insecurity in the United States and its psychological and social consequences for children has increased markedly.<sup>5-15</sup> These consequences will not be averted without having full knowledge of children's experiences when families face food insecurity.

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