



Published in final edited form as:

Appetite. 2011 August ; 57(1): 220–228. doi:10.1016/j.appet.2011.04.025.

It's who I am and what we eat: Mothers' food-related identities in family food choice

Cassandra M. Johnson^a, Joseph R. Sharkey^a, Wesley R. Dean^a, W. Alex McIntosh^b, and Karen S. Kubena^c

^a Texas A&M University Health Science Center, School of Rural Public Health, Program for Research in Nutrition and Health Disparities, MS 1266, College Station, TX 77843-1266 USA

^b Texas A&M University, Department of Sociology, MS 4351, College Station, TX 77843-4351 USA

^c Texas A&M University, Department of Nutrition and Food Science, MS 2253, College Station, TX 77843-2253 USA

Abstract

This study aimed to understand mothers' everyday food choices using one type of visual method—participant-driven photo-elicitation (PDPE). The sample consisted of 12 low/moderate income mothers (26–53 years) living in Bryan/College Station, Texas. Each mother completed a photography activity, where she created photographs of her food experience, and an in-depth interview using the mother's photographs. Interview transcripts were analyzed using a grounded theory approach and coded using qualitative data analysis software ATLAS.ti. Mothers emphasized their identities related to food and eating as they described food-related decisions and activities. These identities influenced a mother's food choices for herself and those she made for her children. Analysis revealed that mothers with a more defined health identity made healthier choices for themselves and similar food choices for their children. In addition, they exhibited behaviors that positively influenced their children's food choices. Mothers who struggled to see themselves as healthy indulged with more junk food and indicated feelings of anxiety and guilt; these mothers' food choices were more disconnected from their children's. These findings underscore the importance of understanding how identities related to food and eating can influence food choices. Encouraging mothers to develop and maintain health identities may be one way to improve food and eating habits in families.

Keywords

family; mothers; identity; health; food choice; participant-driven photo-elicitation (PDPE); visual methods

Introduction

This study employed a grounded theory approach with photo-elicitation to broadly understand how mothers approach food choice. Grounded theory employs “systematic yet

© 2011 Elsevier Ltd. All rights reserved.

jrsharkey@srph.tamhsc.edu [Joseph R. Sharkey].

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

flexible guidelines” throughout the research project and uses qualitative data to “construct theories ‘grounded’ in the data themselves” (Charmaz, 2006). This approach was selected to understand routine food decisions and activities from the participants’ perspectives. We conducted photo-elicitation interviews with 12 low/moderate-income mothers living in Central Texas. While analyzing interview transcripts, we discovered that mothers’ food-related identities were most salient in her food choices and behaviors that influenced her children’s food choices. Identities related to food and eating included participants’ characterization of their food and eating habits. Bisogni and colleagues created a theoretical framework describing identities related to eating, and their model was used for framing the results of this analysis (2002). This paper expands on their work by using a diverse sample of mothers and photo-elicitation to understand how those identities are enacted in mothers’ everyday food choices for herself and her children.

Background

Mothers are a primary influence on their children’s diet and health. Prior work indicates a relationship between mothers’ health and nutrition knowledge and children’s dietary intake; specifically, mothers’ with more knowledge were associated with children who had lower intakes of fat, saturated fat, cholesterol, sodium and higher intakes of fiber (Variyam, Blaylock, Lin, Ralston, & Smallwood, 1999). Mothers can influence their children’s diet by providing certain foods in the home, and through mother-child feeding practices (Birch & Fisher, 1998; Campbell et al., 2007; Skinner, Carruth, Bounds, & Ziegler, 2002). Research also finds mothers’ food choices to affect their children’s weight (Birch & Fisher, 2000; Faith et al., 2003). Scholars report that mothers consider feeding-related responsibilities such as providing nutritious meals for their families as part of being a good mother and central to their identities (Chapman & Ogden, 2009; Charles & Kerr, 1988; DeVault, 1991; Murcott, 1983).

Previously, Bisogni and colleagues created a model for depicting the relationship between identities related to eating using interviews conducted with white, middle-class men and women (2002). Participants discussed their food-related identities by describing themselves as eaters, food/eating habits and changes in habits, life experiences related to food, and comparing their own food and eating habits with others (e.g., family members, friends). Their framework described three types of identities related to eating -- eating practices, other personal characteristics, and reference groups and social categories (e.g., being a mother) -- and three identity processes, which were development and revision, evaluation and monitoring, and enactment of identities. This work helped establish the salience of food-related identities in food choices and suggested future work should involve grounded theory studies with varying groups of participants (Bisogni, et al., 2002).

Visual methods, such as photo-elicitation, can be useful for studying mothers’ experiences with food in their families and capturing the context surrounding their everyday food choices (Power, 2003). Photo-elicitation is defined by inserting a photograph, taken by the researcher, the participant, or others, into a research interview (Harper, 2002). The method is advantageous for understanding the participant’s perspective and has been used previously to study identity (Harper, 2002). According to Harper, individuals respond differently to visual information presented in photo-elicitation than to verbal information in traditional interviews, and as a result, this method can “evoke deeper elements” of the participant’s human experience (Harper, 2002). This study utilized participant-driven photo-elicitation (PDPE) methodology, which incorporates participants’ photographs with an in-depth interview and is similar to participatory photo interviewing and photovoice methodologies in involving the participants in the research process (Clark-Ibanez, 2004; Johnson, Sharkey, Dean, & McIntosh, 2010; Keller, Fleury, & Rivera, 2007; Kolb, 2008; Van Auken, Frisvoll,

& Stewart, 2010). This method which used interviews is different from photovoice which relies on focus groups (Wang, 1999; Wang & Burris, 1997). There are several benefits to using PDPE which include creating tangible stimuli for “deep” interviews, producing rich data, and reducing the power differential between participant and researcher (Van Auken, et al., 2010). However, to our knowledge, no other studies other than our own have used participant-driven photo-elicitation to understand food-related identities and family food choice (Johnson, et al., 2010). Therefore, this paper will use participant-driven photo-elicitation interviews to answer two research questions: 1) How do mothers define themselves around food and eating, and 2) how are those identities present in the food choices they make for themselves and their children?

Methods

Approach

A grounded theory approach was used for this qualitative project from conceptualization and to data collection and analysis (Charmaz, 2006; Glaser & Strauss, 1967). Grounded theory methods involve “systematic yet flexible guidelines” throughout the research project; these methods typically use qualitative data to “construct theories ‘grounded’ in the data themselves” (Charmaz, 2006). This approach centers on data, studies events and experiences occurring in the data, and uses the data to pursue analytical “hunches” and ask questions prompted from the data. A major advantage of grounded theory principles is the ability to understand the lives of the participants in context (Charmaz, 2006).

Participants

This study included 12 mothers living in Bryan/College Station, TX. The sample size of 12 participants is larger than comparable studies using photo-based methodology to study food and health issues in women (Keller et al., 2007; Fleury, Keller, & Perez, 2009; Valera, Gallin, Schuk, & Davis, 2009) and slightly smaller than a study with 13 participants that blended photovoice with grounded theory (Lopez, Eng Randall-David, & Robinson, 2005). Details on recruitment, study materials and data collection have been published elsewhere (Johnson, et al., 2010). Briefly, a convenience sample of women ($n = 12$) was recruited from the 32 participants who had previously participated in the 2008 Brazos Valley Household Food Inventory (HFI) study conducted in Central Texas (Sisk, Sharkey, McIntosh, & Anding, 2010). HFI participants included both English- and Spanish-speaking women living in the Bryan/College Station area. Researchers from the HFI project recruited a subsample of participants from the HFI project by selecting mothers who were: 1) currently living in the study area, 2) had a working phone number, and 3) with at least one child under the age of 18 living in the same household. Of the original 32 HFI participants, the researchers selected the first 20 households for recruitment. Four participants were excluded because they were not considered to be low/moderate-income. The remaining 16 participants were contacted by telephone and invited to participate in a follow-up study related to mothers and food. Researchers explained that the purpose of the project was to understand how mothers approach food choice on a daily basis, from thinking about food and meal planning to grocery shopping, cooking, and eating. Those who were interested and gave permission were contacted for an initial interview. Three were excluded for various reasons including not having a working telephone number ($n = 1$) and not wanting to participate ($n = 2$). From these 16 participants, 13 participants agreed to participate and were recruited into the study. One participant failed to arrive for the first meeting, did not return telephone calls, and she was excluded from the study. All 12 participants provided consent to participate in the audio-recorded interview. The Institutional Review Board at Texas A&M University approved this study.

Data collection

Study activities were performed in the participants' homes. English study materials were translated into Spanish by a bilingual, bicultural researcher for the two Spanish-speaking participants. The interviewers had graduate-level academic training and experience in qualitative methods including in-depth interviews; they also were trained on protocol and use of data collection instruments. A team of two researchers completed all study activities, and a bilingual, bicultural researcher led the visits for the two Spanish-speaking participants. During an initial visit, participants provided written consent, completed a one-page sociodemographic survey, and participated in training for the photography activity. Each mother was provided with a 27-exposure disposable camera for the photography activity and given an opportunity to practice taking photographs with a demonstration camera. Mothers were encouraged to use the cameras creatively to show their "food experience", defined by what they do with food on a daily basis and were given a few examples, such as "spending time in your kitchen", "running errands", and "family or social events". The photography assignment was intended to be creative and to facilitate participants' photography of images that reflected their perspectives and day-to-day experiences, which is consistent with participant-driven photo-elicitation methodology (Van Auken, et al., 2010). Each participant was instructed to take at least 15 photographs for the assignment and the remaining exposures for personal use. Step-by-step camera instructions detailed how to charge the flash, advance the film, and maintain a minimum five feet distance between the camera and object to be photographed. After approximately seven days, researchers collected the cameras and the film was processed locally. From each camera, two sets of photographs and one compact disc with digital photographs were created. One set was given to the participants as a gift for their participation, and the other was retained for research purposes. After obtaining photographs, participants were called to schedule the photo-elicitation interviews.

Photo-elicitation interviews were conducted by a team of two trained researchers in the participants' homes and were audio recorded. Ten of the photo-elicitation interviews were conducted in English, and two were conducted in Spanish by a bilingual, bicultural, trained researcher. The photo-elicitation interview began with presenting the photographs to the participants and asking participants to generally describe their experiences with the photography activity. Then, each participant was asked to select six to eight of her photographs to discuss and provide a title for each selected photograph. Researchers prompted participants to choose photographs that they most wanted to share or thought were interesting. The participants' photographs were discussed using a semi-structured interview guide based on the SHOWeD technique, which is commonly used in photovoice and participant-driven photo-elicitation studies (Keller, et al., 2007; Shaffer, 1983; Wang, 1999; Wang & Burris, 1997). The SHOWeD technique uses the following prompts during an interview: "What do you see in this picture?" "What is happening in this picture?", "How does this relate to our lives?", "Why does this problem, concern or strength exist?" and "What can we do about it?" Two items from the SHOWeD technique that were most relevant were used in the interview guide: "What do you see in this picture?", and "What is happening in this picture?" Examples of other interview guide items included: "When was this picture taken?", "What is missing from this picture?", "Why did you select this photograph?", "Is this a typical activity/occasion/food item for your family?" and "How does this picture make you feel?" Probes such as, "Tell me more about [what's shown in] this picture" and "Explain that further", were used to further explore topics. This interviewing approach allowed a collaborative discussion where the participant played an active role in shaping the conversation and both the participant and researchers listened and contributed to discussion. Following a discussion of the participant's selected photographs, the researchers selected a few, typically three to four, photographs to discuss. Photographs selected by the researcher

included photographs that were not originally chosen by the participant, especially those that differed from the majority of the selected photographs. For example, for participants who selected photographs of mostly home-prepared meals taken inside her kitchen or home, the researchers engaged the participants in a conversation about photographs showing away-from-home, packaged foods or photographs not taken in her home. Photo-elicitation interviews lasted approximately 50 minutes (range 22–91 minutes).

Transcription and translation

Following data collection, audio files from the interviews were transcribed verbatim, compared to the audio files, and revised for accuracy of transcription. Modifications were made to capture emotions and interview context. Audio files for the two Spanish-speaking participants were transcribed and translated using a three-phase process. First, audio files were transcribed verbatim in Spanish by a bilingual, bicultural researcher. Then, the Spanish audio files were listened to again to capture any missing words or phrases, expressions, emotions, and interview context in Spanish. The verified Spanish text files were translated into English. Finally, the complete English transcripts were reviewed and revised to ensure equivalence. The participants' photographs and photograph titles were inserted into the photo-elicitation transcripts for continuity. In addition, researchers replaced the participants' names with pseudonyms (e.g., Vicki, Pat, Lola), which were used during analysis.

Analysis

Analysis was done using English transcripts and a grounded theory approach (Charmaz, 2006; Glaser & Strauss, 1967). With this approach, the analysis began with the transcript data and not with an existing framework in order to allow insights regarding food choice to emerge from the data. For each participant, researchers listened to the interview recording multiple times to document additional notes and reflections from the interview. Then, transcripts were reviewed again by the first author and summary sheets (memos) for each participant were created, which contained personal characteristics, salient observations and quotations (Bisogni, et al., 2002). The first author and co-authors discussed the participants' summary sheets. The data emphasized that participants' identities related to food and eating and enactment of these identities were dominant themes. Identities related to food and eating were defined as statements where participants described their eating habits; enactment of these identities was defined by statements where participants discussed their food/eating habits in the context of self-descriptions related to food and eating. At this point, it was decided that the analysis would focus on these two dominant themes, and the 12 transcripts were organized for analysis using ATLAS.ti (ATLAS.ti Scientific Software Development GmbH, version 5.2, 2009, Berlin, Germany). The first author used an iterative process to develop and apply codes to the interview transcripts, and code definitions and reflections were documented in ATLAS; the coding process and findings were discussed regularly with co-authors. Coding focused on identifying different types of identities related to food and eating and how mothers enacted these identities in their own food choices and food choices for their children. Quotations linked to various codes were compared across mothers' transcripts to understand dimensions within each type of identity and food-related behaviors where mothers enacted food-related identities. Analysis continued until no new insights were gained from the data regarding participants' food-related identities (Charmaz, 2006; Glaser & Strauss, 1967). The following section describes the two major themes that emerged from data analysis: mothers' identities related to food and eating and mothers' enactment of these identities in routine food choices.

Results

Participants' characteristics

Table 1 presents participant characteristics of the 12 mothers. Mothers were middle-age, low/moderate income women with at least one child under the age of 18 years living in the same household. Average age of the mothers was about 37 years (range: 26–53 years). The sample was diverse, with mothers self-describing race/ethnicity as non-Hispanic white (42%, $n = 5$), Hispanic (42%, $n = 5$), and African-American (17%, $n = 2$). Two of the five Hispanic participants were Spanish-speakers. Most participants had at least a high school education, (67%, $n = 8$) lived with their husband or partner (83%, $n = 10$), and worked outside the home (75%, $n = 9$).

Participants' photographs

In total, mothers produced 208 food-related photographs, with each participant taking between 11 and 27 photographs of her food experience (average: 17 photographs). The images included natural and posed images, as well as still images of food items, dishes/meals, and other objects. Photographs captured the everyday context of mothers' food choices, reflected the mothers' individual perspectives, and showed a variety of images including items purchased from the grocery store, home-cooked dishes and meals, items available or purchased at fast food places and restaurants, and foods stored in pantries, refrigerators, and freezers. Participants also took photographs of different activities, such as preparing food or beverages, family member(s) eating at home, cleaning the dishes after a meal, and snacking at work. Other photographs included recipe books, kitchen appliances, and plastic containers with leftovers.

Identities related to food and eating

Eating practices—The first major theme focused on mothers' identities related to food and eating. Almost all of the participants provided specific examples of identity statements describing themselves as eaters. Food-related identities were defined as identities that mothers used to describe themselves in the context of routine food choices and included identities related to food preferences and eating habits, body image/weight, health, and social categories (e.g., being Hispanic or being a mother). Most mothers described identities related to eating as they discussed food items and meals they would or would not buy, cook, or consume for meals or snacks. Participants identified their eating habits in specific ways, such as “I’m not much of a creative eater” and “Now, I love all vegetables me, myself.” Other identities related to eating practices included “I’m all about good protein”, “I’m not really a breakfast eater” and “I’m not a big leftover person”. Participants would refer to these identities as they moved through the various stages of food choice -- food acquisition (e.g., grocery shopping), preparation/cooking, serving -- as well as consumption (Dean et al., 2010; DeVault, 1991).

Personal characteristics—Approximately half of the participants emphasized identities related to body image and health. Identities related to body image and health were defined by a mother's self-descriptions regarding her body image/weight and being health-conscious, promoting wellness, eating fruits/vegetables, and food choices to avoid physiological problems and diseases, respectively. Seven of the participants connected their perceptions of body image/weight to concern about their child(ren) being overweight. For example, one participant, given the pseudonym Pat, provided this insight regarding her body image as she recalled a conversation with her overweight son, “...You don't want to be like Momma and fight with your weight your whole life...” Other mothers talked about food they avoided purchasing and eating in order to not gain weight or maintain a current, desired weight. Another mother said, “...I don't make them [*tortillas*] often because they get me in

trouble-Ha! (laughs)-with my weight. If I make 'em then I'm gonna wanna eat them all." In addition, participants' descriptions of themselves as a healthy eater, a healthy person, or generally health-conscious were emphasized by half of the mothers (e.g., "I'm all about good protein", "I try to be light in my ways"). For example, one mother explained how she made food choices based on the "pyramid" to determine "the things that are the most important", such as eating fruit on a daily basis.

Social categories—Several participants described identities related to social categories, which captured participants' descriptions of themselves in relation to others or as part of a larger group. Specifically, mothers' identities related to ethnicity and place of origin, such as being Hispanic or being from Mexico, were noticeable in five of the mothers. A few mothers described themselves as being from other places in the U.S. For example, Grace emphasized her cultural identity in the following quotation: "We're from New Orleans, so we got to have somethin' good to eat." Participants' social identities were incorporated into discussions about how they constructed meals and foods served for special occasions.

Another important finding was that the participants' identities as mothers were strongly connected to their food and eating identities. Most of the participants provided various examples of how they viewed themselves as mothers in the context of the food choice process. This sample of mothers was primarily responsible for food-related tasks in their families-grocery shopping, cooking, and serving food and meals. Almost all of the mothers emphasized their role in day-to-day food provisioning activities, and one mother explained that her "job is done" when her children are enjoying their food. However, several mothers explained that it could be difficult balancing children's expectations with their own. In the participant's words, "I worry [that in order to] keep them happy, [I have to have] the foods that they like or the desserts that they like..." From the mothers' perspectives, providing their families with good food and balanced meals, avoiding overweight, and protecting/promoting health were all important values, but they also desired to prepare and serve foods their children liked to eat. One participant explained that managing different values is "difficult up to a point", but as a mother, it is "satisfying" to see her children eating healthy foods.

Almost all of the participants utilized their photographs to illustrate who they were as mothers. Liz, a single mother caring for her five youngest children, named a photograph of her pantry "The [Family]'s Everyday, Hard Workin' Mom's Breakfast" [Figure 1]. She personally identified herself as a "hard workin' mom" and demonstrated her day-to-day struggles in a photograph showing an assortment of inexpensive, "no nutrition" foods that provided for her children's breakfast meals. Liz recognized that the foods had "no nutrition", but understood that her hard work enabled her to provide breakfast foods for her children. Statements, such as this, reveal how mothers define themselves as mothers (e.g., "hard workin'") and how integrated these self-descriptions are with their everyday food choices. In contrast, roughly half the mothers wanted to highlight positive aspects of what they do as mothers, such as purchasing and preparing meals with a variety of vegetables. Mothers showcasing the healthier choices they made for their families presented photographs of more balanced meals and an assortment of nutritious foods stored in the refrigerator and pantry. The next section discusses the second major theme-mothers' enactment of identities related to food and eating-and the various ways that mothers' identities were present in their routine food choices.

Portrayal of food-related identities in mothers' food choices

Mothers discussed portraying their food-related identities, especially those related to health, and showed photographs of common healthy foods, such as whole grain ready-to-eat and hot

cereals, yogurts, and fresh fruits and vegetables, purchased for their own consumption. In her interview, Vicki said “I try to do the healthy stuff first,” and photographs showed foods she commonly eats for breakfast (e.g., single-serve Kashi oatmeal), packs in her lunch (e.g., deli-cut turkey, fat-free sliced cheese), takes for a snack to eat at work (e.g., mixed nuts, fresh apples bananas), and makes for dinner (e.g., lean turkey burgers and frozen broccoli). Mothers spoke about food selections that were “good for you” and those that were not, such as hamburgers and French fries. For example, Paris, who emphasized the importance of good nutrition, used one photograph to share how she ate “bad” at her son’s baseball game because she was “really hungry”, and there was “nothing there healthy to eat”. This story illustrates how she viewed herself as health-conscious and a mother who was involved with her family and negotiated between these identities related to food and eating. Several other health conscious mothers also had photographs of “splurge foods” (e.g. nachos, fried chicken tenders, regular Coca-Cola etc.) which were eaten less often and under certain circumstances.

In addition, several participants emphasized identities related to body image and being a mother as they discussed their own food choices. They provided personal stories about “battles” with weight and spoke about foods they do not buy or eat (e.g., *tortillas*, donuts, candy) because “they get me in trouble”. This was apparent for mothers employing different strategies, such as buying and eating diet foods and drinks, and skipping meals or drinking water for meals, to promote weight loss and improve their body image. Rene explained how she is using Weight Watchers to help her lose weight and considers the number of calories and fat in her food choices. Rene said, “I’m more cautious of what I eat...” and used her photograph “Recipe Soup” to discuss her lighter meals that are “just quicker”, “not so much from scratch”, that “fills [her] up” [Figure 2]. Her photographs facilitated a discussion about her overlapping identities as seen in the following quotation:

I’m not much of a creative eater. I usually eat the same foods. I just stick to them you know. I’m just one a those people...It’s during the week when I’m just at home with the kids...I guess I would put like ‘Mom’s Busy Schedule’ [for a title] because that’s like me trying to eat the best I can in very tight time...I’m enjoying my time right there...

These two photographs gave Rene an opportunity to discuss how she enacts eating, body image, and health identities as well as being a “busy mom” in her daily food choices.

Not all mothers’ identities manifested themselves in healthy food choices. Two of the participants took photographs depicting less nutritious and fast foods and discussed their poor eating habits. For instance, Amanda shared how she rarely eats breakfast because she is not a “breakfast person”, regularly does not take a lunch to work, and instead drinks water to “fill up”. Her photograph named “Chocolate” showed a large bowl of chocolate Lucky Charms cereal with milk (her breakfast) and two chocolate Pop-Tarts with a small carton of chocolate milk next to the cereal (her son’s breakfast). She indicated she does not have time to eat breakfast at home, and may “grab” something, such as a sausage biscuit. Interestingly enough, Amanda took photographs of a box of donuts (“Daylight” photograph) [Figure 3a], brought to work by a coworker at her request, a fast food breakfast that was “all me” (“Chick-Fil-A” photograph), and other high calorie, high fat foods and meals. Another participant Pat also took photographs showing her unhealthy snack of donut holes at work [Figure 3b].

Mothers’ behaviors and children’s food choices

Analysis demonstrated that mothers’ food-related identities manifested in three behaviors that influenced their children’s food choices: 1) making foods available at home, 2) putting meals together, 3) providing verbal information about food and health and modeling healthy

eating habits. The intersection of a mother's health identity with other identities had the most pronounced influence on a mother's food choices for her children. Several participants provided stories about how they recently adopted a health identity for themselves (e.g., Vicki, Paris, Rene, Minnie) and how this identity influenced their approach to feeding their children.

Making foods available at home—Mothers enacted their health and other identities as they made food-related decisions for their family such as deciding what foods to purchase at the store and make available at home. Generally, most of these mothers purchased healthier snacks including fresh fruit and vegetables for their children. For example, Juanie who described the importance of always having fresh apples available for her daughter, shared her photograph “*Canasta de Fruta* [Fruit Basket]”. She explained how much her daughter likes apples and how she thinks apples are “*muy nutritivo* [very nutritious]”, which is why she keeps them on hand. Rene discussed a photograph “A Side Snack” and explained how she selects and purchases foods that she thinks are healthy for her and her children and make her feel good as a mother: “...It helps me to have-. To know that outta these foods, I can feel better and have plenty of energy. It reminds me of what I should be doing, for myself and for my kids...”

Participants also spoke about foods they avoided purchasing to limit consumption, such as regular soda. Most mothers indicated that they do not drink soda, nor have soda available at home for health reasons. For example, Liz, the single, “hard workin’ mom”, originally substituted Gator-Ade for soda, but then stopped buying Gator-Ade and tea to give her children “no choice but water” and to save money. Two participants, Pat and Amanda, were exceptions because they both discussed having soda available at home for themselves and their children. Pat discussed a photograph of her refrigerator's contents depicting cans and two-liter bottles of non-diet soda, and said, “We normally have soda.” However, Pat seemed concerned about her son's weight and him drinking too much soda. Amanda also mentioned having sodas available at home and drinking sodas with meals. Both of these mothers also engaged in other less healthy eating behaviors including eating more junk (or convenience) and fast foods and not regularly eating fruits and vegetables.

Putting together meals—Although mothers shared how they felt responsible for the family's eating habits, diet, and health, it was really in the details of putting together meals that mothers' multiple identities were apparent. In these conversations, each participant had a distinctive way of bringing together different pieces of themselves-as the mother, the dieter, and the healthy one. Approximately half of the mothers described themselves as health-oriented and used their photographs to demonstrate how they enacted multiple food-related identities related to eating practices, personal characteristics, and social categories in order to create a balanced meal. In addition, participants who characterized themselves as loving vegetables or being vegetable eaters were determined to include vegetables with meals for their children. Grace who described herself as loving all vegetables described how she always has a “cabinet full” of carrots, so that she can prepare vegetables her children like to eat for meals. Similarly, mothers enacted cultural identities in their decisions regarding meals, such as preparing “Mexican things” that children like to eat. However, Minnie explained that she does not always give in to her children's requests for traditional foods, because she is health-conscious. Her discussion of photographs revealed how she enacted several identities related to health, body image, being a mother and being Hispanic and adapted traditional Mexican foods for her family that are lower in fat and salt, and with lots of fruits and vegetables. She desired to provide her family with something they like to eat in a way that reflects who she is as an individual and a mother. This was evident in her photograph “*Los Chiles Rellenos* [The Stuffed Peppers]” of a brunch meal where she made a traditional food *chile rellenos*, but instead of the batter-fried preparation method, she

simply grilled the peppers. Similarly, other Hispanic participants spoke about modifying traditional Mexican dishes in order to provide healthier meals for their families. For example, Rene commented that it is “hard” to do, but she tries to “imitate the same foods” without “all the fat”. On the other hand, mothers who did not describe themselves as healthy described a different approach to meals. These mothers emphasized the value of quick and easy foods that were more affordable. Meals may have included a side dish, but more healthful foods such as fruits and vegetables or whole grains were seldom part of the meals. Examples of meals were frozen chicken nuggets and pizza, Mexican take-out, fried chicken, hamburgers, and macaroni and cheese.

Providing information and modeling—Half of the participants described themselves as being healthy and eating nutritious foods, and as mothers they desired to promote similar healthy eating habits in their children. These mothers emphasized how they provided their children with information about food and health, encouraged children to make “good” food choices (e.g., trying, selecting, eating fruits and vegetables), and modeled eating habits for their children (e.g., eating fruits and vegetables, drinking water, using portion control in eating). They stressed the importance of encouraging children to try new foods and consume a varied diet, especially eating different kinds of fruits and vegetables. Grace encouraged her daughter to eat “the right types of foods” by emphasizing the importance of having strong bones for playing sports and reminding her daughter that she (the mother) also eats healthy. Other health-oriented mothers also described the importance of modeling healthy food choices and provided quotes such as, “I don’t mind for them to eat what they see me eating.” This was observed in mothers, like Rene, who desired for her children to “know these [healthy] foods when they get older. In her interview, she explained how she wanted to maintain a healthy lifestyle and expose her children to nutritious foods that were not a part of her upbringing. She shared, “That’s my only hope... I’m just being a typical mom and trying to make my kids a little more, I guess healthier.” Rene perceived being a “typical mom” as a mother who provided her children with healthy foods at home, encouraged her children to make better decisions about what to eat, and modeled healthy habits for her children, such as snacking on fruits and vegetables, eating salads, and drinking water.

Convergence and divergence of food identities with mothers’ behaviors

Convergence—Mothers with an established health identity demonstrated a sense of harmony between how they saw themselves as an individual and a mother, and this was evident in the similar food choices they made for themselves and their families. Several participants used a descriptor to identify themselves as an individual, applied this identity to their family, and then discussed how this collective identity was maintained through day-to-day food choices. For example, Minnie who described herself as being healthy said the photograph “*Naturalmente Fresco* [Naturally Fresh]” [Figure 4] reflected “part of who we are”, because her family prefers natural *aguas frescas* [natural fruit juice] to processed beverages, such as sodas. In addition, several other mothers discussed their healthy eating habits followed by a similar discussion of their children’s healthy food choices. Vicki commented on a photograph “An Apple a Day” of her son carrying a large bag of apples and said, “I’ll take an apple and a string cheese... And he [my son] loves apples. He gets to eat an apple a day.” This statement highlights how Vicki enacted her health identity by snacking regularly on fruits and how Vicki and her son made similar food choices.

Divergence—Two mothers who did not enact health identities indicated difficulty in modeling healthy eating habits to their children. Pat and Amanda served as exemplars because they spoke about their own weight issues and concern for their children’s overweight and expressed conflicting expectations about their children’s food choices. One of the best illustrations of this disconnect is the following quotation from Pat:

...I was just talking to my son about....um, I had told him you know, 'I'm gonna have to-'. I hate to say I had like [to] tell him that 'You have to play outside an hour a day kinda thing'. You know cuz he, he likes to eat at, snack a lot at night too. And, I hate for him to sneak it, and I'm like, 'You can't-'. and you know, 'You don't want to be like Momma and fight with your weight your whole life. You wanna just be normal, and just have...and maintain your weight...'

This was most noticeable in mothers' food choices for themselves especially while alone. These two mothers gave accounts of "sneaking" food when away from their children or husbands. Pat expressed concern about her son sneaking food such as chips and soda, because he is overweight, but revealed instances where she indulged with certain food when alone. Likewise, Amanda discussed her "Chick-Fil-A" photograph depicting a fast food breakfast sandwich meal with a fruit punch fountain drink only after her husband stepped out of the room. Both mothers shared incriminating photographs of themselves snacking or eating fast food at work [Figure 3]. Earlier in her interview, Pat commented about a different photograph of donuts, purchased by her mother, and said, "I won't buy them [donuts], because if I buy them, then I'm gonna eat them and I don't. I try not to." Later, Pat explained that she convinced a coworker to bring her donuts. In her words, "I felt bad because I probably made him feel guilty. Ha! ha! ha! (laughs)." Another mother, Amanda told a parallel story about coercing a co-worker into bringing her donuts.

With photographs such as these, mothers indicated a feeling of guilt regarding their food choices and expressed a sense of failure for not being able to model healthy eating or lifestyle behaviors (e.g., physical activity, smoking). Pat and Amanda both emphasized their own shortcomings such as not packing a lunch "when I should" or snacking on donuts when "I shouldn't have". However, Amanda explained how she made time for the Chick-Fil-A breakfast. "I guess I left a little early and I had time, maybe I didn't. Maybe I was late. I didn't care." Even though she used the words "happy" and "yummy" to describe the "Chick-Fil-A" photograph, she felt bad about having the meal and said, "I probably wanted to puke after I ate it, because I usually don't eat that heavy." Amanda, a frequent dieter, seemed to feel guilty about eating the "heavy" breakfast.

Participants spoke about these photographs in a way to highlight themselves as an individual and de-emphasized their identities as mothers. For instance, Amanda described how the "Chick-Fil-A" photograph was all about her. She said, "Yes, [this was] all me! Ha! ha! ha! (laughs) ...No worrying about (whispers) my husband or my kids. Let them go, drop them off at school, and I get my own." In comparison to conversations about other photographs, in these particular photographs, Pat and Amanda did not connect their food choices to their family or maternal responsibilities. Although there was some indication these mothers were concerned about their children's health, comments were more passive, such as "I hope their eating balanced [diets]..." As an individual, Pat and Amanda did not define themselves as healthy, but they indicated that as a mother they should make healthier food choices and encourage their children to be healthy, which was a difficult task for them.

Discussion

Overall, these results extend the work of Bisogni and colleagues (2002; Blake & Bisogni, 2003) and are consistent with the Food Choice Process Model (Furst, Connors, Bisogni, Sobal, & Falk, 1996). Research confirms that different types of identities related to food and eating, personal characteristics (e.g., health and body image), and social categories (e.g., cultural background and being a mother) are enacted in food choice (Bisogni, et al., 2002). This analysis provides additional refinement for understanding how identities related to larger social structures, food/eating, and body image and health can influence food choice in a family setting. Our reading of the transcripts highlighted both the identity process of

enactment in eating, which was one of the three identity processes previously described (Bisogni, et al., 2002), and how identities were enacted during other food-related activities such as meal planning and grocery shopping. However, these data suggest a supplementary identity process; that is, extension [of identity]. For instance, the process of extension was observed when participants used a descriptor such as healthy to identify themselves as an individual, applied this identity to their family, and then discussed how this collective identity is maintained through day-to-day food choices. This additional process emerged from these participants' transcripts and was not recognized in prior work such as that of Bisogni and colleagues (2002). It is plausible that extension of identities is a variation of the recognized process of enactment (Bisogni, et al., 2002), but that the process of extension is more salient among a sample of mothers. Other scholars have found that feeding the family is a type of "identity work" because mothers position themselves in their food choices and practices, and findings from this analysis are consistent with the idea that mothers consider food-related roles and responsibilities to be essential to their identities (Bugge & Almas, 2006; Chapman & Ogden, 2009; Charles & Kerr, 1988; DeVault, 1991; Murcott, 1983). Our results underscore how mothers' identities are integral to the daily food-related decisions and activities known as *foodwork*. Foodwork requires "material, mental, and social labor" and is comprised largely of meal planning, grocery shopping, and cooking (Bove & Sobal, 2006; Bove, Sobal, & Rauschenbach, 2003).

Analysis indicates identities related to food and eating played a prominent role in mothers' food choices for themselves and their families. These findings highlight the importance of a mother's identities to food-related activities, such as making foods available at home, putting together meals, and providing verbal information and modeling healthy eating habits to children. Having an established health identity distinguished mothers, who made healthier food choices for themselves, provided fruits and vegetables at home and with meals and taught/modeled healthy eating habits from those who did not or struggled to do so. The strong influence of having a defined health identity could be theoretically explained with the concept of psychological centrality from self-concept theory, or the concept of salience from identity theory (Owens, 2003). *Psychological centrality* is defined as "importance" or the "personal value one places on an identity", while *salience* is defined as "the likelihood that a given identity will be invoked and is strongly influenced by (an individual's) social network" (Owens, 2003, p. 218) However, it can be difficult to distinguish the difference between the effects of these two concepts (Owens, 2003). For example, participants could perceive a health identity as being personally more important and invoke this identity in a more noticeable manner, which would be supported by centrality. On the other hand, these mothers could have been more likely to enact a health identity because of their social positions, networks, or other structural constraints related to being a mother, which would be attributed to the psychological salience of a health identity. Previous research suggests that mothers with higher levels of health and nutrition knowledge may provide more healthy foods to their children compared to mothers with lower levels of nutrition knowledge (Variyam, et al., 1999). It may be that mothers identifying themselves as healthy seek information about food and health, gain knowledge about health and nutrition, and purchase more healthy foods for their households thus making more healthy food items available at home. Alternatively, this sample of mothers could have been more health conscious than average mothers. Although the study was presented to potential participants as a broad study of mothers' food-related activities and decisions and not a study focused on mother's healthy eating behaviors or children's nutrition, more health-conscious mothers could have self-selected to participate in the project.

This study found mothers who were in charge of family feeding, diet, and health but failed to see themselves as being healthy, and experienced negative feelings such as guilt and conflict in food-related decisions for themselves and their children. These mothers lacked

the confidence and positive sentiments that more healthy mothers exhibited when discussing and reflecting on their food choices. Research suggests that mothers, such as Pat and Amanda, who were overwhelmed with balancing work and family demands along with expectations to provide healthy meals, may report dissatisfaction when evaluating their food choices and be more likely to use coping strategies, such as treating themselves with food, skipping meals, and making trade-offs between their own and their children's nutrition to conserve time and energy (Blake et al., 2009). Related literature indicates individuals may experience negative outcomes when multiple identities such as those associated with distinct roles are in opposition, which has been described as identity interference (Settles, 2004; Van Sell, Brief, & Schuler, 1981). The current results suggest that mothers who had a more central health identity did not experience the more negative outcomes observed in mothers without the defined health identity. It could be that the healthier mothers had different understandings of health and that negative outcomes associated with identity interference, which was observed in mothers who lacked this defined health identity, were buffered (Settles, 2004). In addition, prior work describes how mothers may use different mental schemas or motivations for their own food choices versus the food choices for their families (Alderson & Ogden, 1999; Blake & Bisogni, 2003). Our findings are supported by and expand on the existing literature by presenting the emotional component associated with the overlap and divergence of food-related identities (Blake & Bisogni, 2003; Blake, et al., 2009).

Results from this qualitative study underscore the personal nature of food choice. Understanding how mothers see themselves is critical to identifying mothers' motivations in personal and family food choices. Furthermore, results indicated a desire to be a good mother and wanting to provide healthy snacks or balanced meals was not enough. For example, Pat and Amanda both expressed how they wanted to provide healthy foods for their children and did not want their children to "struggle" with overweight and obesity. However, these mothers, who did not see themselves as healthy, struggled to make healthier food choices for themselves or their families and indicated dissatisfaction with the coping strategies used to manage family food choices (Blake, et al., 2009). Thus, future research must consider who mothers are to understand the "how" and "why" behind the "what" related to daily food choices.

This study's strengths come from its use of participant-driven photo-elicitation methodology. Participants had the opportunity to be engaged in the research process and were empowered to describe experiences related to food choice without the constraints of quantitative data from a survey or prescribed interview questions. Photo-elicitation was useful for overcoming the difficulty that women can experience in articulating their experiences with food and how they approach food choice in their families (Power, 2003). The photographs, taken and named by the participants, provided an emic look into the daily lives of the participants, and the photo-elicitation interview produced understanding beyond the researcher's point of view. Others also have noted how this method allows researchers to "recover unarticulated aspects" of participants' experiences and can facilitate empowerment (Lorenz & Kolb, 2009; Van Auken, et al., 2010).

However, this study is not without limitations. First, analysis for the two Spanish-speaking participants relied on English transcripts. Although the transcripts were reviewed and modified by a bilingual, bicultural researcher in order to create an accurate transcript that preserved original concepts and meaning, some subtlety may have been lost in the process. Future work should utilize a more comprehensive transcription and translation process with a team of bilingual, bicultural researchers. In addition, a parallel analysis approach would be advantageous, where both English and Spanish transcripts are separately analyzed in the original language and discussed. Second, participants' photographs and transcripts may not

accurately reflect mothers' experiences related to food. Their photographs represented images that they wanted to capture and were willing to share. Data on everyday food choices reflect mothers' perceptions and may be different from their actual behavior. Additional research would benefit from engaging different populations to better understand food choice from a mother's perspective.

Food choice research has only begun to understand how identity plays into decisions about what foods to purchase, prepare, and eat. This study provides insight into how mothers employ their identities as they make food choices for themselves and their children which extends current research. These findings are relevant for mother- or family-centered interventions aimed at promoting healthy eating, especially consumption of fruits and vegetables. Notwithstanding its limitations, this study necessitates future research in order to further explore how identities are involved in the food choice process.

References

- Alderson TS, Ogden J. What do mothers feed their children and why? *Health Education Research*. 1999; 14(6):717–727. [PubMed: 10585380]
- Birch LL, Fisher JO. Development of eating behaviors among children and adolescents. *Pediatrics*. 1998; 101(3 Supplement):539–549. [PubMed: 12224660]
- Birch LL, Fisher JO. Mothers' child-feeding practices influence daughters' eating and weight. *American Journal of Clinical Nutrition*. 2000; 71(5):1054–1061. [PubMed: 10799366]
- Bisogni CA, Connors M, Devine CM, Sobal J. Who we are and how we eat: a qualitative study of identities in food choice. *Journal of Nutrition Education and Behavior*. 2002; 34(3):128–139. [PubMed: 12047837]
- Blake C, Bisogni CA. Personal and family food choice schemas of rural women in upstate New York. *Journal of nutrition education and behavior*. 2003; 35(6):282–293. [PubMed: 14642213]
- Blake CE, Devine CM, Wethington E, Jastran M, Farrell TJ, Bisogni CA. Employed parents' satisfaction with food-choice coping strategies. Influence of gender and structure. *Appetite*. 2009; 52(3):711–719. [PubMed: 19501770]
- Bove CF, Sobal J. Foodwork in newly married couples: making family meals. *Food, Culture and Society: An International Journal of Multidisciplinary Research*. 2006; 9(1):69–89.
- Bove CF, Sobal J, Rauschenbach BS. Food choices among newly married couples: convergence, conflict, individualism, and projects. *Appetite*. 2003; 40(1):25–41. [PubMed: 12631502]
- Bugge AB, Almas R. Domestic dinner: representations and practices of a proper meal among young suburban mothers. *Journal of Consumer Culture*. 2006; 6(2):203–228.
- Campbell KJ, Crawford DA, Salmon J, Carver A, Garnett SP, Baur LA. Associations between the home food environment and obesity-promoting eating behaviors in adolescence. *Obesity*. 2007; 15(3):719–730. [PubMed: 17372323]
- Chapman K, Ogden J. A qualitative study exploring how mothers manage their teenage children's diets. *Vulnerable Children and Youth Studies*. 2009; 4(1):90–100.
- Charles, N.; Kerr, M. *Women, Food, and Families*. Manchester, UK: Manchester University Press; 1988.
- Charmaz, K. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London: Sage Publications Ltd; 2006.
- Clark-Ibanez M. Framing the social world with photo-elicitation interviews. *American Behavioral Scientist*. 2004; 47(12):1507–1527.
- Dean WR, Sharkey JR, Cosgriff-Hernandez KL, Martinez AR, Ribardo J, Diaz-Puentes C. "I can say that we were healthy and unhealthy": food choice and the reinvention of tradition. *Food, Culture, and Society*. 2010; 13(4):573–594.
- DeVault, ML. *Feeding the Family: The Social Organization of Caring as Gendered Work*. Chicago: University of Chicago Press; 1991.

- Faith MS, Heshka S, Keller KL, Sherry B, Matz PE, Pietrobelli A, et al. Maternal-child feeding patterns and child body weight. *Archives of Pediatrics & Adolescent Medicine*. 2003; 157(9):926–932. [PubMed: 12963600]
- Fleury J, Keller C, Perez A. Exploring resources for physical activity in Hispanic women, using photo elicitation. *Qualitative Health Research*. 2009; 19(5):677–686. [PubMed: 19380503]
- Furst T, Connors M, Bisogni CA, Sobal J, Falk LW. Food choice: a conceptual model of the process. *Appetite*. 1996; 26:247–266. [PubMed: 8800481]
- Glaser, BG.; Strauss, AL. *The discovery of grounded theory: strategies for qualitative research*. 8. Hawthorne, New York: Aldine Transaction; 1967.
- Harper D. Talking about pictures: a case for photo elicitation. *Visual Studies*. 2002; 17(1):13–26.
- Johnson CM, Sharkey JR, Dean WR, McIntosh WA. “I’m the momma”: using photo-elicitation to understand matrilineal influence on family food choice. *BMC Women’s Health*. 2010; 10(21)
- Keller C, Fleury J, Rivera A. Visual methods in the assessment of diet intake in Mexican American women. *Western Journal of Nursing Research*. 2007; 29(6):758–773. [PubMed: 17717106]
- Kolb B. Involving, sharing, analysing--potential of the participatory photo interview. *Forum: Qualitative Social Research*. 2008; 9(3):25.
- Lopez EDS, Eng E, Randall-David E, Robinson N. Quality-of-life concerns of African American breast cancer survivors within rural North Carolina: blending the techniques of Photovoice and grounded theory. *Qualitative Health Research*. 2005; 15(1):99–115. [PubMed: 15574718]
- Lorenz LS, Kolb B. Involving the public through participatory visual research methods. *Health Expectations*. 2009; 12(3):262–274. [PubMed: 19754690]
- Murcott. British Sociological Association. “It’s a pleasure to cook for him”: food, mealtimes and gender in some South Wales households. In: Gamarnikow, E., editor. *The Public and the Private*. London: Heinemann; 1983. p. 78-90.
- Owens, TJ. Self and Identity. In: Delamater, J., editor. *Handbook of Social Psychology*. New York: Kluwer Academic/Plenum Publishers; 2003. p. 205-232.
- Power EM. De-centering the text: exploring the potential for visual methods in the sociology of food. *Journal for the Study of Food and Society*. 2003; 6(2):9–20.
- Settles IH. When multiple identities interfere: the role of identity centrality. *Personality and Social Psychology Bulletin*. 2004; 30(4):487–500. [PubMed: 15070477]
- Shaffer, R. *Beyond the dispensary*. Nairobi, Kenya: Amref; 1983.
- Sisk C, Sharkey JR, McIntosh A, Anding J. Using multiple household food inventories to measure food availability in the home over 30 days: a pilot study. *Nutrition Journal*. 2010; 9(19)
- Skinner J, Carruth B, Bounds W, Ziegler P. Children’s food preferences: A longitudinal analysis. *Journal of the American Dietetic Association*. 2002; 102(11):1638–1647. [PubMed: 12449287]
- Van Auken PM, Frisvoll SJ, Stewart SI. Visualising community: using participant-driven photo-elicitation for research and application. *Local Environment: The International Journal of Justice and Sustainability*. 2010; 15(4):373–388.
- Valera P, Gallin J, Schuk D, Davis N. “Trying to eat healthy”: a photovoice study about women’s access to healthy food in New York City. *Affilia*. 2009; 24(3):300–314.
- Van Sell M, Brief AP, Schuler RS. Role conflict and role ambiguity: integration of the literature and directions for future research. *Human Relations*. 1981; 34(1):43–71.
- Variyam JN, Blaylock J, Lin BH, Ralston K, Smallwood D. Mother’s nutrition knowledge and children’s dietary intakes. *American Journal of Agricultural Economics*. 1999; 81(2):373–384.
- Wang CC. Photovoice: a participatory action research strategy applied to women’s health. *Journal of Women’s Health*. 1999; 8(2):185–192.
- Wang CC, Burris MA. Photovoice: concept, methodology, and use for participatory needs assessment. *Health Education & Behavior*. 1997; 24(3):369–387. [PubMed: 9158980]

Highlights

- Focused on mothers' food choices using participant-driven photo-elicitation
- Salient identities were related to food preferences, health, and being a mother
- Identities present in behaviors that influenced children's food choices
- Differences observed in behaviors related to having more defined health identity



Figure 1.

This photograph shows common foods Liz keeps in the pantry for her children's breakfast. She described the Pop-Tarts and cereal straws as "junk food" and "no nutritionist" food and commented the Pop-Tarts were bought on sale five for one dollar.

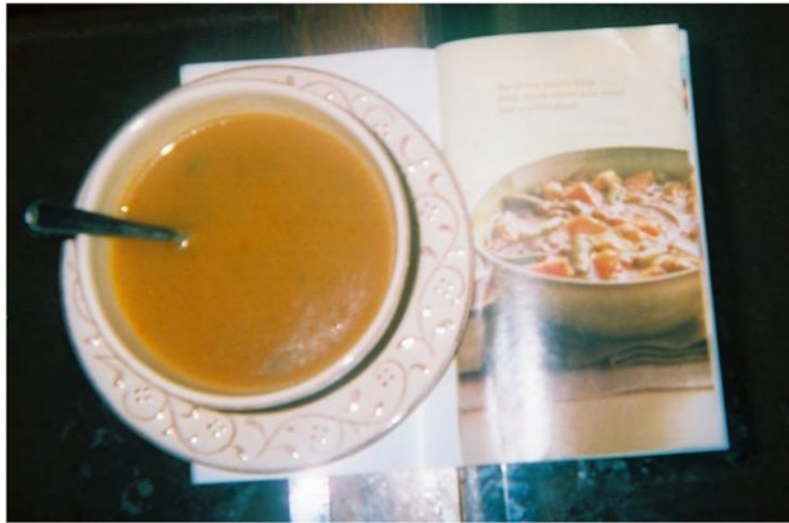


Figure 2. This photograph illustrates how Rene employs multiple identities related to health and being a “busy mom” in her own food choices. She mentioned she would prefer “more different” foods, but “can’t have all the time in the world” because of her young children.



Figure 3.

Figure 3a and 3b. Amanda took this photograph of donuts at work to show her breakfast one morning. “Half the time, I wouldn’t even eat this, but... Well, sometimes in the mornings, guys bring donuts...” Her comments were misleading at first because later Amanda confessed, “I really like their [Daylight] donuts...pro’ly cuz I eat ‘em so much now.” Pat’s photograph shows a bag of donut holes from a co-worker. She took the photograph “just to show you that like I was at work...and they were donut holes, so I was like popping ‘em in my mouth while I was at work...I shouldn’t have but...”



Figure 4. This photograph shows *agua de papaya* [natural papaya fruit juice] being poured into a glass. Minnie was proud of this photograph and described the photograph as *muy bonita* [very pretty]. She explained she may have *refresco* [soda] in another photograph, but tries to make a different *agua fresca*, such as *agua de limon* [lemon fruit juice], *de papaya* [papaya], or *de pina* [pineapple], everyday.

Table 1

Participants' characteristics

	Race/ethnicity	Age (years)	Highest level of education (years)	Annual household income	Number of adults in home	Ages of children (years)	Employed	Living with husband/partner
Vicki	White	26	Not reported	\$30,000–\$35,000	1	4	Yes	No
Pat	Hispanic	39	12 th grade	\$20,000–\$25,000	2	13, 5	Yes	Yes
Lola	Hispanic	33	12 th grade	\$16,000–\$19,900	2	12, 9, 7, 3	Yes	Yes
Paris	White	32	GED & Some college	\$20,000–\$25,000	2	15, 9	Yes	Yes
Liz	White	37	9 th grade	Less than \$10,000	2	16, 15, 13, 10, 9	Yes	No
Sunny	White	37	12 th grade	\$36,000–\$39,000	2	12, 10, 6, 3	Yes	Yes
Gladys	African American	42	12 th grade	\$20,000–\$25,000	3	16, 7, 3	Yes	Yes
Minnie	Hispanic	46	Some college	\$36,000–\$39,000	3	14, 11	No	Yes
Grace	African American	53	8 th grade	Less than \$10,000	2	16	Yes	Yes
Rene	Hispanic	27	10 th grade	Less than \$10,000	2	8, 4, 2	No	Yes
Amanda	White	29	Some college	\$36,000–\$39,000	2	7, 7	Yes	Yes
Juanie	Hispanic	42	Some college	\$40,000–\$50,000	2	15, 10	No	Yes