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## Perspectives on Stress, Parenting, and Children’s Obesity-Related Behaviors in Black Families

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### Abstract

**Objective**—In an effort to develop targets for childhood obesity interventions in non-Hispanic-Black (Black) families, this study examined parental perceptions of stress and identified potential links among parental stress and children’s eating patterns, physical activity, and screen-time.

**Method**—Thirty-three self-identified Black parents or grandparents of a child aged 3 to 7 years were recruited from a large, urban Black church to participate in semistructured interviews. Interviews were audio-recorded, transcribed, and analyzed using thematic analysis.

**Results**—Parents/grandparents described a pathway between how stress affected them personally and their child’s eating, structured (sports/dance) and unstructured (free-play) physical activity, and screen-time usage, as well as strategies to prevent this association. Five themes emerged: stress affects parent behaviors related to food and physical activity variably; try to be healthy even with stress; parent/grandparent stress eating and parenting; stress influences family cooking, food choices, and child free-play; and screen-time use to decrease parent stress. Negative parent/grandparent response to their personal stress adversely influenced food purchases and parenting related to child eating, free-play, and screen-time. Children of parents/grandparents who ate high-fat/high-sugar foods when stressed requested these foods. In addition to structured physical activity, cooking ahead and keeping food in the house were perceived to guard against the effects of stress except during parent cravings. Parent/child screen-time helped decrease parent stress.

**Conclusion**—Parents/grandparents responded variably to stress which affected the child eating environment, free-play, and screen-time. Family-based interventions to decrease obesity in Black

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#### Supplementary Material

Supplementary materials related to this article can be requested from the corresponding author.

children should consider how stress influences parents. Targeting parent cravings and coping strategies that utilize structure in eating and physical activity may be useful intervention strategies.

### Keywords

BMI; fast food; fruit; obesity; physical activity; psychological stress; vegetables

The physical, psychological, and social consequences of childhood obesity are deleterious and often persist into adulthood (Freedman, Mei, Srinivasan, Berenson, & Dietz, 2007; Juonala et al., 2011; Ogden, Carroll, Kit, & Flegal, 2014; Puhl & Latner, 2007). According to trends from 2009 to 2012, non-Hispanic-Black (Black) children in the United States ages 2 to 5 years had a twofold higher prevalence of obesity (14.7%) compared with non-Hispanic-White (White) children (6.4%; National Center for Health Statistics, 2014). This disparity grows even larger in later childhood and extends into adulthood (National Center for Health Statistics, 2014). Increased access to high-fat/high-sugar foods and beverages, fewer opportunities to engage in regular physical activity, and higher exposures to screen-time (recreational time in front of screens such as televisions, computers, and tablets) in predominantly Black neighborhoods contribute to this disparity (Anderson, Economos, & Must, 2008; Lovasi, Hutson, Guerra, & Neckerman, 2009; Powell, Wada, & Kumanyika, 2014; Rossen & Talih, 2014). However, additional influences that may be more easily addressed, such as perceived stress, may also be a contributor.

Perceived stress in parents and grandparents, that is, the perception that environmental demands tax or exceed one's adaptive capacity, is associated with child obesity and obesity-promoting eating behaviors (Koch, Sepa, & Ludvigsson, 2008; Lazarus, 1966; Parks et al., 2012; Renzaho, Kumanyika, & Tucker, 2011). However, the mechanisms that explain these associations are unclear. Stress may have adverse effects on the quality of parenting as it relates to child feeding, physical activity (structured [e.g., sports/dance] and unstructured [child free-play]), or screen-time. Similarly, stress may reduce the likelihood that parents and grandparents will model healthy eating and physical activity behaviors for their children. Parent and grandparents' ability to protect their children from obesity-promoting environments may be greatest during the preschool and early school-age years, making the examination of factors that influence parenting behaviors related to child obesity at these ages especially relevant (Anzman, Rollins, & Birch, 2010).

Understanding the effects of parental stress may be particularly important when designing interventions to reduce levels of obesity in Black children. Compared with Whites, Blacks have a lower life expectancy, are more likely to be single parents, experience racism, and have unique job and financial stressors (James, 1994; Lekan, 2009; Lewis-Coles & Constantine, 2006; U.S. Census Bureau, 2014). Stress from racism and neighborhood racial segregation are associated with obesity among adults (Cozier et al., 2014). Stress exposures may in turn translate into parental behaviors that affect children's home environments. For example, perceived stress in Black adults is associated with haphazard meal planning and increased consumption of high-fat/high-sugar foods (Lazarus, 1966; Sims et al., 2008). While we know that parent stress is associated with child obesity, neither the mechanisms of the association nor potential protective or contributory influences have been examined in Black

families. Thus, this study sought to qualitatively explore how stress in Black parents and grandparents influence parenting related to food, the child's physical activity, and the child's screen-time.

## Method

Individual, semistructured, open-ended interviews of Black parents (parent or grandparent) of 3- to 7-year-old children were conducted to explore parents' perceptions of stress and effects on behaviors related to food, physical activity, and screen-time. Derived from the main constructs in the primary research questions, responses were elicited in the following areas: How do parents define stress? How do parents perceive that stress influences their own and their child's behaviors related to food, physical activity, and screen-time? How does stress influence the child's home environment related to food, physical activity, and screen-time?

## Setting and Sample

A review of the literature and our pilot work determined that education, partner status (single, married), and guardianship status (parent, legal guardian, or grandparent) were important confounders to the relationship of parent stress and child obesity-promoting behaviors (Garasky, Stewart, Gundersen, Lohman, & Eisenmann, 2009; Glaser & Strauss, 1967; Parks et al., 2012). Thus, a purposeful sampling approach was used to recruit a diverse set of 48 caregivers stratified into these categories. Study participants attended a Black church in an urban metropolitan area in the Northeastern United States and met the following inclusion criteria: (a) self-identified as Black parents (parent, legal guardian, grandparent, or other caregiver 19 years); (b) provided care for a child ages 3 to 7 years 3 days per week; and (c) were English speaking. Participants were excluded if they reported (a) significant psychopathology (e.g., psychosis, bipolar disorder, untreated major depressive disorder, eating disorders); (b) use of weight loss medications (including diet supplements) or any other medications or chronic conditions that could interfere with dietary intake or physical activity; or (c) having a child with any of the following conditions: syndromic or secondary obesity, developmental disorder (e.g., autism and mental retardation), orthopedic problems interfering with moderate to vigorous physical activity, or history of systemic corticosteroid use (as this may affect both physical activity and dietary behaviors in children). The study was approved by the Institutional Review Board of The Children's Hospital of Philadelphia.

## Procedure

During the screening interview, parents supplied information about themselves and their children regarding, age, gender, the number of people living in the household, employment status (full-time, part-time, unemployed, retired), child height and weight, perceived weight status of the child, and perception of social support. The subsequent interview was either in person or by telephone based on the preference of the participant, and lasted about 60 minutes. Participants received gift cards for their participation. Interviews were conducted by research assistants selected for their ability to pose open-ended questions in a neutral manner. The principal investigator met weekly with the interviewers to debrief about the

interviews and to assure consistency and quality. The interview protocol contained 12 open-ended questions (Table 1) designed to elicit themes regarding the influence of stress on parent, child, and parenting behaviors related to food, physical activity, and screen-time (recreational time in front of a screen: TV, video game, tablet, or computer). All interviews were audio-recorded, transcribed, de-identified, checked for accuracy, and entered into NVivo 10.0 (QSR International Pty Ltd, Burlington, MA qualitative analysis software).

## Data Analysis

Transcripts were analyzed thematically (Braun & Clarke, 2006). Close line-by-line reading of five randomly selected transcripts were used to identify key ideas in the data. These key ideas became codes. We operationalized each code and created decision rules for when each code should be applied. Coding decisions and ideas in the group meetings about the data emerged and memos about the ideas were created. All transcripts were then jointly coded by two coders, and the interrater reliability function in NVivo was used to identify agreement between coders. Coding was conducted independently and reviewed during group meetings. Interviews were read iteratively until thematic saturation was reached. When discrepancies in the coding occurred, they were resolved by consensus. Codes that were identified to form a specific pattern were grouped under specific themes (Boeije, 2002).

## Results

Although 48 interviews were the original goal, we terminated recruitment at 33 interviews because the major themes were saturated for each of the key groups (partnered/not partnered, college/no college, and parent/grandparent). Participant characteristics are shown in Table 2. The sources of stress (stressors) in this sample included children, work, finances, and family dynamics. Respondents defined stress in three different ways that had different effects on their own or their children's eating behaviors. Parents/grandparents in this study defined stress as "responsibility and pressure," "feeling overwhelmed," and a "change in routine." Parent stress as responsibility and pressure was a particular trend for single mothers (Table 3). Single mothers, regardless of education, identified feeling responsible for the child's entire well-being and the pressure of being the only person accountable to make sure their child had everything needed to be successful. Although feeling overwhelmed was described in all groups, single college-educated mothers and married high school-educated mothers specifically described feeling overwhelmed with having too many family obligations, activities for themselves and their children, and not enough time. Married college-educated parents referred to stress as "a change in routine" (Table 3). Analyses of transcripts yielded five main themes related to the above-mentioned descriptions of perceived parent stress, child eating, physical activity, and screen-time and are summarized below.

### **Stress Affects Parent/Grandparent Behaviors Related to Food, Physical Activity, and Screen-Time Variably**

There were two subthemes that emerged regarding eating in response to stress. In response to stress, parents either ate more food (specifically more high-fat/high-sugar foods), or they ate less food. Some parents reported that even if they did not eat more in the moment, they

had increased cravings for high-fat/high-sugar foods. Cravings, along with feeling overwhelmed, led to the purchase and consumption of foods like ice cream and/or fast food even when a meal was already prepared at home. In contrast, parents who ate less in response to stress described either skipping meals altogether or decreasing the amount of food consumed. This dichotomy of behavior was seen in single, married, and grandparent caregivers of all education levels.

Similarly, while some parents exercised less with stress, others used exercise as a stress reliever. Parents who exercised more with stress had a scheduled exercise routine and the provision of child care from a spouse or an extended family member. Parents who described stress as pressure or feeling overwhelmed described not exercising. Grandparents specifically reported walking as a routine regardless of stress.

### **Try to Be Healthy Even With Stress**

There was a belief in being healthy as a family as a part of one's overall faith. This belief was characterized by a desire to make sure the child has a healthy meal even if the parent does not. In order for parents to follow-through on providing the child a healthy meal, protective factors against the influence of stress on eating were implemented. That is, some parents and grandparents mentioned that when meals were planned and "healthy" food was in the house family meals and eating were less likely to be affected by stress. "Healthy" food had varying definitions, but always included either a vegetable or fruit. Strategies for healthy meals included having a scheduled time for grocery shopping, preplanned meals, cooking for the week, and preparing the dinner meal in the morning before work. Sharing responsibilities with a spouse or another adult facilitated the above strategies. However, financial constraints made it difficult for some parents to plan ahead.

Protecting their children from stress was also reflected in parents' continuing to keep up with the child's structured activity even when stressed. Single parents, in particular, mentioned that they may not "feel like" taking their child to their structured activity, even when stressed, but child participation in structured activities including sports, dance, and other church activities remained a priority for all groups. Spousal support, extended family members, and church members were key elements in child participation in structured activities with and without stress.

### **Parent/Grandparent Stress Eating and Parenting**

Parents perceived that, for the most part, stress did not influence how their children were fed. This was particularly true for parents who ate less with stress. Eating less food in response to stress was not felt to affect their child's eating. The strategies listed above for maintaining a healthy environment were felt primarily to be protective of the effects of stress. However, despite feeling that parent stress should not affect the child, parents who ate high-fat/high-sugar foods in front of their child when stressed described an increase in child requests and consumption of those same food items. In response, parents reported eating in private, restricting child intake, or permitting the child to eat the high fat/high sugar foods.

### **Stress Influences Family Cooking, Food Choices, and Free-Play**

Although parents and grandparents described protective strategies against stress, they also mentioned stress as a reason for obtaining fast food and preparing quicker meals. In response to feeling overwhelmed or a change in routine, parents reported a decreased desire to cook, increased purchase of prepared and processed foods, and increased eating away from the home. Processed meals included fully prepared frozen dinners, frozen meals that just required the addition of water, meals from a can, and meals prepared from a box-mix. Eating away from home included fast food, takeout, and sitdown restaurants. Additionally, some young parents cited not being able to cook in combination with being stressed as influencing food choices. For some parents and grandparents, the fast food meal doubled as a scheduled time to relax with family and not have to cook (e.g., “Boys’ night out at McDonalds,” “Friday is pizza night”).

Single and married parents and grandparents reported differences in the effects of stress. That is, single parents without additional support described routinely utilizing quick methods to feed their children. Married couples described eating fast food as a default when there was a change in routine and when navigating between child and family activities. Regardless of stress, grandparents were focused on providing foods that their grandchild enjoyed. This resulted in a range of behaviors: providing only vegetables their grandchild liked, not providing vegetables at all, or eating meals outside of the home.

Grandparents described making sure their grandchild played outside or walked with their grandchild regularly. In contrast, free-play inside (time inside without a screen, i.e., tablet, TV, computer, etc.) and outdoors was noted to decrease with stress in both married and single parents. Screen-time increased when free-play decreased.

### **Screen-Time Use to Decrease Parent Stress**

Screen-time was utilized to decrease stress for parents and as scheduled family time. Parents and grandparents described watching more television when feeling stressed and tired. Single parents and married parents without a college education used time in front of the television and tablets to “gain composure,” or to have personal time away from their children during times of stress. Additionally, parents who discussed not wanting their stress to affect their child noted that having their child watch television was a way for the parent to collect themselves and “not take it out” on their child. Both parents and grandparents commented that educational computer and tablet games were felt to be beneficial and thus did not enforce time restraints.

### **Discussion**

This study described the personal perspective of Black parents and grandparents of how stress influenced their parenting in the context of their child’s weight-related behaviors. Parents felt that their stress and stress responses should not affect their children, but acknowledged that there were negative effects on child eating, free-play, and screen-time. Unlike parents who ate less with stress, parents who ate more with stress described parenting challenges related to their child’s eating. Meal planning and cooking ahead were felt to be



protective against stress, except when parents had cravings or there were changes in routine. Parents felt having active children was important and easier to accomplish with social support and structured physical activity. Child free-play continued with stress in grandparents but was decreased with stress in parents. Child screen-time increased with parent stress and, for some, was noted as a way for parents to regain composure.

Parents in this study went beyond prior work that identified their stress as affecting childhood obesity and fast food purchases for their children by also discussing the potential associated mechanisms contributing to their behavior (Groesz et al., 2012; Parks et al., 2012; Sims et al., 2008). Although fast food purchase was sometimes planned, it was described as an easy, inexpensive default in the presence of stress (changes in routine), parent fatigue, and cravings. A higher concentration of fast food restaurants in Black neighborhoods along with racially targeted advertisements and promotions may make resisting fast food options more difficult under stress (Grier & Kumanyika, 2008; Hickson et al., 2011; Reitzel et al., 2014; Siwik & Senf, 2006). Tactics for avoiding fast food purchase such as preplanning and increasing vegetables and fruit in the home are key constructs for child weight management interventions (Wrotniak, Epstein, Paluch, & Roemmich, 2005). However, preplanning was not utilized by parents who either did not cook or did not have additional support. Thus, improving cooking skills and providing social support are important strategies for intervention (Garasky et al., 2009; Gundersen, Lohman, Garasky, Stewart, & Eisenmann, 2008; Parks et al., 2012; Schmeer, 2012).

Parents serve as role models for child behavior and thus eating more, or less, with stress may have negative consequences for their children (Anzman et al., 2010; Campbell, Crawford, & Ball, 2006; Jones, Steer, Rogers, & Emmett, 2010). The consumption of high-fat/high-sugar foods in front of their child increased child requests for these foods, and for some, led to negative parenting behaviors. That is, parents either gave in to the request of the child (permissive parenting) or did not allow the child to eat the food items while they themselves continued to eat the foods (restrictive parenting). Both permissive and restrictive parenting styles have been found to be higher in Blacks and are associated with child obesity (Hubbs-Tait, Kennedy, Page, Topham, & Harrist, 2008; Spruijt-Metz, Lindquist, Birch, Fisher, & Goran, 2002). Parents who eat less with stress may promote potentially unhealthy eating patterns such as meal-skipping behaviors in their child (Jodkowska, Oblacinska, Tabak, & Radiukiewicz, 2011; Kral, Whiteford, Heo, & Faith, 2011; Levitsky & Pacanowski, 2013). Thus, understanding how stress affects parent eating may provide clinicians with behavioral targets for obesity prevention.

Although screen-time increased during parent stress, having active children was important for parents. Increasing screen-time was reported as a means for parents not to take out their stress on their child. Physical activity was easiest to enforce through structured physical activity and active video games as opposed to free-play. Prior studies which did not differentiate between structured and unstructured activity either found no association or decreased physical activity with increased parent stress (Parks et al., 2012; Walton, Simpson, Darlington, & Haines, 2014). Structured activities provide a safe, monitored physical activity and the opportunity to either be social with other parents or do other things (like run

errands/grocery shop). In contrast, free-play requires supervision and outside play may cause concern for safety.

## Strengths and Limitations

This qualitative study was designed to provide in-depth understanding of the effects of stress in Black urban parents from a church community living in the Northeast region of the United States on child obesity-related behaviors. Thus, the results from this study may not be generalizable to all Black parents. Although we stratified by education and employment status, we did not measure income, and this study may not be representative for Black families across income brackets. The weight status of the parent was not recorded and thus we could not differentiate response to stress in obese versus nonobese parents. Parents may have responded in socially desirable ways, but as stories emerged from the interview process, it is unlikely that social desirability played a large role. Furthermore, the use of individual, semistructured interviews is more likely to avoid the influences of social desirability from group norms in responses compared with other forms of qualitative research such as focus groups (Hays & Anneliese, 2012). The use of semistructured interviews allowed us to hear more detailed explanations of the relationships of stress in Black parents and parenting related to their child's eating and physical activity. This study was designed and implemented in collaboration with the community being studied and included a socioeconomically and educationally diverse population with both grandparent and parent caregivers.

Parents' description of their personal attitudes, values/influences from society, their family and friends and the church (subjective norms), and their perceived behavioral control align with the components of intention which predicts health behavior change as described by the theory of planned behavior and reasoned action (Ajzen, 1991, 2002). In congruence with the literature, problems arose when parents felt that they did not perceive themselves to have control to execute parenting related to a behavior (Ajzen, 2002; Pescud & Pettigrew, 2014). Examples of this are seen in parents who purchased fast food with cravings, unexpected changes in routine, and parents who do not have cooking skills.

## Implications for Practice

A faith-based organization could serve as a good target to assist potentially with subjective norms through health promotion campaigns, emphasis on healthy behaviors related to food, physical activity, and screen-time in sermons and Bible study, and making healthy eating a normative behavior within these organizations. Furthermore, community and faith-based organizations can assist with perceived behavioral control. That is, community and faith-based organizations may provide avenues for structured physical activity and provide social support, training tools regarding cooking, and potentially stress mediation. This may be particularly relevant for single parents who may be more vulnerable to the effects of stress (Garasky et al., 2009; Parks et al., 2012).

If confirmed in quantitative studies, the results of this study may have clinical, public health, and community implications for child obesity in Black families. Particular findings that need



further exploration are the significance of how parents respond to stress related to eating and the presence of cravings. Furthermore, if confirmed that the use of screen-time is a child-protective tactic during times of parent stress, alternative strategies rather than simply recommending the reduction of screen-time should be utilized.

Structure in eating and exercise as a protective factor against the effects of parent stress in children should also be explored. Meal planning was described to be a very helpful tool to continue families' healthful eating during times of parent stress. Federal programs such as Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and Supplemental Nutrition Assistance Program (SNAP), schools, and community and faith-based organizations should focus not only on providing access to healthy foods through government programs but also training in meal planning, budgeting, and preparation. In summary, public health, community, and clinical involvement may be necessary to assist Black families with coping strategies to navigate the impact of both the presence of chronic stressors and the experience of stress in an obesogenic environment on child obesity.

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**Table 1**

## Sample Open-Ended Semistructured Interview Questions.

- 
1. When I say the word stress, what does it mean for you as a parent?
  2. What causes stress in your life?
  3. What effect does stress/feeling overwhelmed have on the health of you and your family?
  4. How does stress/feeling overwhelmed affect the way you and your family eat?
    - a. If you cook, what you cook and how often that you cook for yourself and your child?
    - b. The types of foods that you purchase from the grocery store for yourself and your child?
    - c. The food that you purchase from restaurants including fast food restaurants and corner stores for yourself and your child?
  5. How often do you exercise?
  6. How does your stress/feeling overwhelmed affect how often your child plays outside, participates in sports, dance, or other organized activities that keep your children active?
  7. How does your stress/feeling overwhelmed influence how much time that you spend watching television, doing recreational activities on the computer such as Facebook, or play computer/video games?
  8. How does your stress/feeling overwhelmed influence how much television your child watches?
    - a. How much time does your child spends on the computer or playing video games?
  9. What is your experience with race-related stress? (Any in your job, school, community, stores, etc.?)
  10. How likely are you to talk with someone if you were feeling stressed?
  11. Who would you talk with?
  12. What advice do you have for families to cope with stress that would keep their families healthy?
  13. How helpful would it be for you and your family if the church were to offer a program for parents and children that incorporated the weekend sermon, Bible study, family focused exercise, and healthy eating?
-

**Table 2**Parent and Child Characteristics (*N* = 33).

Sample Characteristics	Mean/Percentage
In-person interviews (%)	92
Child age (years), mean (range)	4.5 (3–7)
Child sex	
Female	55%
Child BMI (%) <sup>a</sup>	
Underweight (< 5th percentile)	6
Normal weight (>5th and <85th percentile)	36
Overweight (> 85th percentile and <95th percentile)	6
Obese (> 95th percentile)	36
Missing	15
Parent perception of child weight category	
Underweight	6
Normal weight	33
Overweight	6
Obese	36
Missing	18
Parent age (years) (%)	
20–29	27
30–39	42
40–49	21
50–59	3
60–69	6
Parent sex (%)	
Female	94
Parent relation to child (%)	
Mother	82
Father	6
Grandmother	15
Other	6
Highest level of education (%)	
Less than or equal to high school	30
Some college	30
College	21
Graduate school	18
Employment status (%)	
Full-time	39
Part-time	21
Student	6
Unemployed <sup>b</sup>	15

Sample Characteristics	Mean/Percentage
Housewife	3
Retired	9
Number of people in the household, mean (range)	4 (2–7)
Main caregiver (%)	81
No perceived social support <sup>c</sup> (%)	15

*Note.* BMI = body mass index.

<sup>a</sup>BMI calculated from parent report of child height and weight.

<sup>b</sup>Unemployed group does not contain housewife or retired grandparents.

<sup>c</sup>Perceived social support assessed by question, “Are there other adults who help you with child care responsibilities?”

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Table 3

## Themes, Subthemes, and Relevant Quotes.

Themes	Subthemes	Quotes
Parent definitions of stress	Responsibility and pressure	“Responsibility. Pressure. And just the feeling of, the feeling that responsibility can sometimes bring.”
	Overwhelmed	“When I hear the word stress, hmm, I guess it seems—I think of being overwhelmed or not being able to handle what’s going on in my life at that particular time.”
	A change in routine	“Stress would mean anything that affects my normal routine.”
Stress affects parent lifestyle behaviors variably	Perceived effects of stress on parent eating	“So yes, I would say that if I was—if I’m having a really busy, crazy day, I can go and pick up fast food”
		“So if it is stress, I’m the one that’s now running out to grab—I just need an ice cream cone”
		“For me personally, if I’m stressed, I don’t eat.”
Try to be healthy even with stress	Perceived effects of stress on parent exercise activity	“I guess when you’re tired and you feel stressed out you don’t want to make time to exercise.”
		“No, no. I exercise even more when I’m stressed.”
		“I believe in being healthy, it’s something that I feel like it’s in line with your faith, your family, health all that.”
Make sure family has a healthy meal even if I don’t	Belief in being healthy	“If we’re stressed, like I said it’s still in the forefront of our mind to eat something healthy. It may not be the best meal, but like I said, typically we’re gonna have a vegetable or some fruit during the day.”
		“I won’t worry about what I’m eating. I’ll just make sure my son gets the food that he needs like say, a hot dog, vegetable, or something like that.”
		“I usually don’t eat when I’m stressed, I just don’t have the appetite to eat. But her, on the other hand, she still eats regardless, morning breakfast, you know, snack, lunch.”
Protective factors for eating	Protective factors for eating	“I normally make enough food that for one day I will have it—I will have enough to have it as leftovers the following day”
		“Because more so I try to prepare my meals sometimes before—the night before or I get up in the morning, before I go to work to prepare.”
		“Even though I’m stressed, they don’t have anything to do with my stress. So I have to make sure they get what they need as far as their sports and stuff like that.”
Protective factors for child structured activity	Protective factors for child structured activity	“So for scheduled activities, she does go swimming on Friday’s and she’s been doing that for over a—2 years now. So those schedules are kinda on and I know she enjoys it and we keep that.”
		“If I’m stressed and I don’t really feel like cooking, I’ll just say, okay, we’ll make sandwiches or hot dogs or we’ll order out pizza or buffalo wings. Cheese steaks. Hoagies. Stuff—something quick, fast, and in a hurry, if we don’t have time to really cook.”
		“If I’m pressured too much and it’s so overwhelming—I’ll go the market and get one of those ready entrees and I can just put it in the oven instead of just preparing something from scratch, I’ll just go and get something from the market, put it in the oven—a fast meal, or maybe a TV dinner or something.”
Stress influences family’s cooking and food choices	Parents relied on fast food or other prepared or convenience foods.	“Like sometimes it is like the stuff that’s frozen that’s already made that I just want to pop in the microwave or put in the oven and have it already done so I won’t have to do it. So yeah it’s like, sort of you get a little lazy when you’re stressed and overwhelmed.”
		“... if I’m stressed or just feeling that maybe I don’t—she doesn’t always get the time to go out and play.”
		“But for the things that are not planned and maybe where I would typically maybe let her go outside and play out for a while, I would say yes, if I’m stressed, she may not get to go out.”
Children have less free-play outside	Children have less free-play outside	“... if I’m stressed or just feeling that maybe I don’t—she doesn’t always get the time to go out and play.”
		“But for the things that are not planned and maybe where I would typically maybe let her go outside and play out for a while, I would say yes, if I’m stressed, she may not get to go out.”

Themes	Subthemes	Quotes
	Financial pressures	“Yes, it does, because if you are low on money and you’re trying to make ends meet, you’re going okay, I can get a little bit of this just to last me through until I’m able to get some more income or get some other resources to be able to—and so that’s stressful, because sometimes you could find yourself literally planning your meals day by day. I’m grateful, because I do receive food stamps and so that helps us out tremendously with just my daughter and me being able to eat.”
Parent stress eating and parenting	Modeling behavior	“When she sees that I’m eating it (high fat/high sugar food), then she wants some too”
	Not eating in front of the child	“Like we can wait until she’s sleeping and we’re gonna eat those chips or that ice cream.”
	Permissive parenting	“So when I’m stressed, my kids get everything—the most fattening of foods that we could possibly eat and/or go out to eat.”
	Restrictive parenting	“You know, occasionally, any child—like, she may see somebody with candy or we have candy here in the store, she’ll eat that but I usually limit her intake of a lot of junk foods.”
Screen-time use to decrease parent stress	To decrease parent personal stress	“Well, when I feel stressed, a lot of times I like to go watch TV.” “Let me sit and watch this. I’ll kind of regroup and then it’s like all right, let me get back to what I’ve got to do. I use TV to de-stress sometimes”
	Increased screen-time to protect the child from parent stress	“I tell her the minute I’m stressed, go into your room and watch TV or go and play—and she does it.” “Yeah. Like when I’m stressed. It’s just I don’t want to take it out on him. That’s when I’m just, like, okay, just go watch TV or just go to sleep or ...”