

ASSOCIATIONS BETWEEN HOUSEHOLD FOOD INSECURITY, PARENTAL
SELF-EFFICACY AND FRUIT AND VEGETABLE PARENTING
PRACTICES AMONG PARENTS OF 5-8 YEAR OLD
OVERWEIGHT CHILDREN

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF SCIENCE
IN THE GRADUATE SCHOOL OF THE
TEXAS WOMAN'S UNIVERSITY

DEPARTMENT OF NUTRITION AND FOOD SCIENCES
COLLEGE OF HEALTH SCIENCES

BY

ANGELA HILMERS, M.D.

DENTON, TEXAS

DECEMBER 2011

TEXAS WOMAN'S UNIVERSITY
DENTON, TEXAS

11/07/2011

To the Dean of the Graduate School:

I am submitting herewith a thesis written by Angela Hilmers entitled "Associations between Household Food Insecurity, Parental Self-efficacy and Fruit and Vegetable Parenting Practices among Parents of 5-8 year old Overweight Children." I have examined this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science with a major in Nutrition.

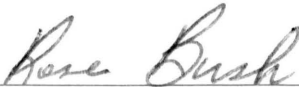


Carolyn Moore, PhD, Major Professor

We have read this thesis and recommend its acceptance:



John Radcliffe, PhD, RD



Rose Bush, MS, RD



Karen Cullen, PhD, RD



Chandan Prasad, PhD

Accepted:



Dean of the Graduate School

DEDICATION

To God, my Creator to whom I owe my very existence and without whom “there is for mankind no purpose, no goal, no hope, only a wavering future, an eternal dread of every darkness” (Jean Paul, 1763-1825)

ACKNOWLEDGMENTS

It is a pleasure to thank the many people who made this thesis possible.

I would like to thank my mentor, Dr. Karen Cullen from the Children's Nutrition Research Center, for the excellent guidance, timely comments, and motivation during the thesis research and writing.

I am also grateful to my advisor, Dr. Carolyn Moore and the members of my committee, Dr. John Radcliffe, and Ms. Bush for taking the time to guide me through this process.

My special thanks to Dr. Teresia O'Connor for providing me with the data for this thesis.

Finally, I am grateful to my entire family for the enthusiasm they have always shown for my studies, especially, my loving husband, Dr. David Hilmers who has been a constant source of intellectual inspiration and has provided me with his continued support and encouragement. To them I dedicate this thesis.

ABSTRACT

ANGELA HILMERS

ASSOCIATIONS BETWEEN HOUSEHOLD FOOD INSECURITY, PARENTAL SELF-EFFICACY, AND FRUIT AND VEGETABLE PARENTING PRACTICES AMONG PARENTS OF 5-8 YEAR OLD OVERWEIGHT CHILDREN

DECEMBER 2011

Food insecurity may negatively impact children's dietary intake by affecting parenting quality. This study investigated whether food insecurity influences parental self-efficacy and parenting practices to promote fruit and vegetable consumption. A secondary analysis was conducted using baseline data from 31 mothers of 5-8 year old overweight children who participated in an obesity treatment program. Household food security status, parental self-efficacy (modeling/socialization, planning/encouraging and availability/accessibility) and parenting practices (structure, responsiveness, non-directive control, and external control) were assessed using validated measures. Independent t-tests compared differences by food security status. Results showed no significant differences between food-secure and insecure groups. A trend towards a decrease in parental self-efficacy to make fruit and vegetables available and accessible at home was observed in the food-insecure group. This finding supports further hypothesis-driven research examining the impact of food insecurity on parental self-efficacy and food-related parenting practices.

TABLE OF CONTENTS

	Page
DEDICATION.....	iii
ACKNOWLEDGMENTS	iv
ABSTRACT	v
LIST OF TABLES.....	viii
LIST OF FIGURES	ix
 Chapter	
I. INTRODUCTION	1
Purpose of the Study	4
Statement of the Problem	4
Research Questions	4
Null Hypotheses	5
Significance.....	5
II. REVIEW OF LITERATURE	7
Defining Food Insecurity	7
The Psychological and Social Dimensions of Food Insecurity-Negative Impacts on Parents and Children	9
Estimation of Food Insecurity.....	10
Food Insecurity and Children’s Dietary Behavior	11
Parental Self-Efficacy as Predictor of Parenting Quality	12
Parenting Practices and Children’s Dietary Behavior	14
The Role of Parenting on the Food Insecurity-Obesity Paradox	17
III. METHODS	21

Study Design.....	21
Helping HAND.....	21
Participants	23
Measures	23
Demographic Data.....	23
Anthropometrics	23
Food Insecurity	24
Parental Self-Efficacy (PSE) and Parenting Practices (PP)	24
Self-efficacy fruit and vegetable parenting practices questionnaire (SEFVPP).....	24
Fruit and vegetable parenting practices questionnaire (FVPP)	25
Data Control and Management.....	26
Statistical Analyses	26
IV. RESULTS	28
Participants	28
Food Insecurity and Parental Outcomes	30
V. DISCUSSION.....	33
Limitations.....	36
Conclusions and Future Prospects	36
REFERENCES	37
APPENDICES	
A. IRB Approval.....	47
IRB letter.....	48
B. Questionnaires.....	49
Demographic Survey.....	50
FV Parenting Practices.....	62
FV Parental Self-Efficacy.....	69
Food Insecurity Survey.....	73

LIST OF TABLES

Table	Page
1. Dimensions of Food Insecurity and its Dietary Manifestations According to Radimer.....	8
2. Parental Self-efficacy (PSE) Conceptual Frameworks	17
3. Parenting Practices Related to Children’s Fruit and Vegetable Consumption	18
4. Participants’ Characteristics (N=31).....	28
5. Differences between Included and Excluded Subjects	29
6. Comparisons of Participant Characteristics by Household Food Security Status	30
7. Differences across PSE and FVPP Sub-scales by Household Food Security Status.....	31

LIST OF FIGURES

Figure	Page
1. Research questions.....	5
2. Negative effects of food insecurity on parental psychosocial well-being	10
3. Hypothetical model linking food insecurity to parental self-efficacy, food-related parenting practices and child's weight status	20

CHAPTER I

INTRODUCTION

Food insecurity is defined as "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire food in socially acceptable ways" (Campbell, 1991; Carlson, Andrews, & Bickel, 1999; Nord & Hopwood, 2007). In the U.S., 14.7 percent or 17.4 million households experienced food insecurity in 2009, with substantially higher rates among populations at increased risk for obesity such as low-income households and racial/ethnic minority groups (Nord, Coleman-Jensen, Andrews, & Carlson, 2010). Research has shown that the presence of food insecurity causes negative effects in the home food environment by decreasing dietary quality (Dixon, Winkleby, & Radimer, 2001; Kendall, Olson, & Frongillo, 1996; Kirkpatrick & Tarasuk, 2008; Rose & Oliveira, 1997; Skalicky et al., 2006) and disrupting parent-child interactions (Bronte-Tinkew, Zaslow, Capps, Horowitz, & McNamara, 2007; Huang, Oshima, & Kim, 2010). Although parenting and its effects on a child's dietary behavior and nutritional outcomes have been extensively studied, relatively little is known about the impact of food insecurity on specific food-related parenting practices. Because parenting practices have a direct effect on children's dietary behavior and food choices, parental exposure to higher stress levels caused by food insecurity may undermine family efforts to engage in beneficial weight-related health behaviors and may place children at risk for later obesity.

Food insecurity has been recognized as a source of external stress that can negatively impact parenting quality (Bronte-Tinkew et al., 2007; Huang et al., 2010). At the household level, food insecurity is associated with disrupted household dynamics evidenced by parental irritability, anger, parental unavailability, and conversation gap with children (Hamelin, Beaudry, & Habicht, 1999, 2002). At the individual level, food insecurity is linked to feelings of deprivation or lack of choice and higher levels of anxiety affecting parental psychological well-being (Hadley & Patil, 2006; Huang et al., 2010). Food insecurity has also been associated with overcompensation during periods when food is available (Hamelin et al., 1999; Olson, Bove, & Miller, 2007; Smith & Richards, 2008), a practice that may affect children's dietary and nutritional status and may be expected to have long-term detrimental effects.

Social cognitive theory (SCT) (Bandura, 1997) postulates that a dynamic interplay of personal (e.g., self-efficacy), agent's behavior (e.g., parenting practices), and the physical and social environment (e.g., home food insecurity) interact to influence outcomes (e.g., children's fruit and vegetable consumption). Parents influence their children's home food environment by making food available (Rosenkranz & Dziewaltowski, 2008) and through parental modeling (Vereecken, Haerens, De Bourdeaudhuij, & Maes, 2010). Parental modeling, parental intake, and fruit and vegetable (FV) home availability have been consistently associated with children's FV consumption (Gross, Pollock, & Braun, 2010; Kristjansdottir, De Bourdeaudhuij, Klepp, & Thorsdottir, 2009; Pearson, Biddle, & Gorely, 2009). Lower intakes of FV have been

observed among children from low- income households where food availability and the amount of time parents spent managing their children's eating behavior were reduced (Mushi-Brunt, Haire-Joshu, & Elliott, 2007).

Parental self-efficacy (PSE) is an estimation of the degree to which parents perceive themselves as capable of performing the varied tasks associated with parenting (Montigny & Lacharite, 2005). Parental self-efficacy has been linked to parenting quality (Morawska, Winter, & Sanders, 2009) and has been related to important aspects of parenting such as role satisfaction, parental warmth, control, responsiveness, participation, and involvement (Stifter & Bono, 1998; Teti, Hess, & O'Connell, 2005). Higher PSE has been associated with children performing more obesity protective behaviors such as regular physical activity and fruit and vegetable consumption (Campbell, Hesketh, Silverii, & Abbott, 2010). Low PSE has been related to less competent parenting practices such as the use of coercive discipline (Bugental & Happaney, 2004), parental defensive and controlling behaviors as well as to a higher risk of stress, and parental depression (Sanders & Woolley, 2005).

While research has underscored the importance of strengthening PSE to promote a healthier home food environment for children (Jones et al., 2010), emerging evidence linking food insecurity to childhood obesity suggests the need for integrated efforts that consider the family context and its surrounding environment on child's access to adequate food (McCurdy, Gorman & Metallinos-Katsaras, 2010). Moreover, since parents from food-insecure households may be more likely to use "detrimental practices"

that further compromise the quality of their children's diet (Hamelin et al., 2002), developing strategies to increase parenting skills to adequately manage limited food resources is warranted.

Purpose of the Study

The purpose of this study was to explore associations between food insecurity (an external stressor), parental self-efficacy (an internal personal factor), and parenting practices (specific agent's behavior) related to children's fruit and vegetable consumption.

Statement of the Problem

Food insecurity is a socio-economic and environmental stressor that can negatively impact parenting quality. Parental exposure to higher stress levels caused by food insecurity may undermine family efforts to engage in beneficial weight-related health behaviors and may put children at risk for later obesity.

Research Questions

The following research questions guided the development of this research (Figure 1):

1. Is there an association between household food insecurity and parental self-efficacy to provide/encourage children's fruit and vegetable consumption?
2. Is there an association between household food insecurity and parenting practices to increase children's fruit and vegetable consumption?

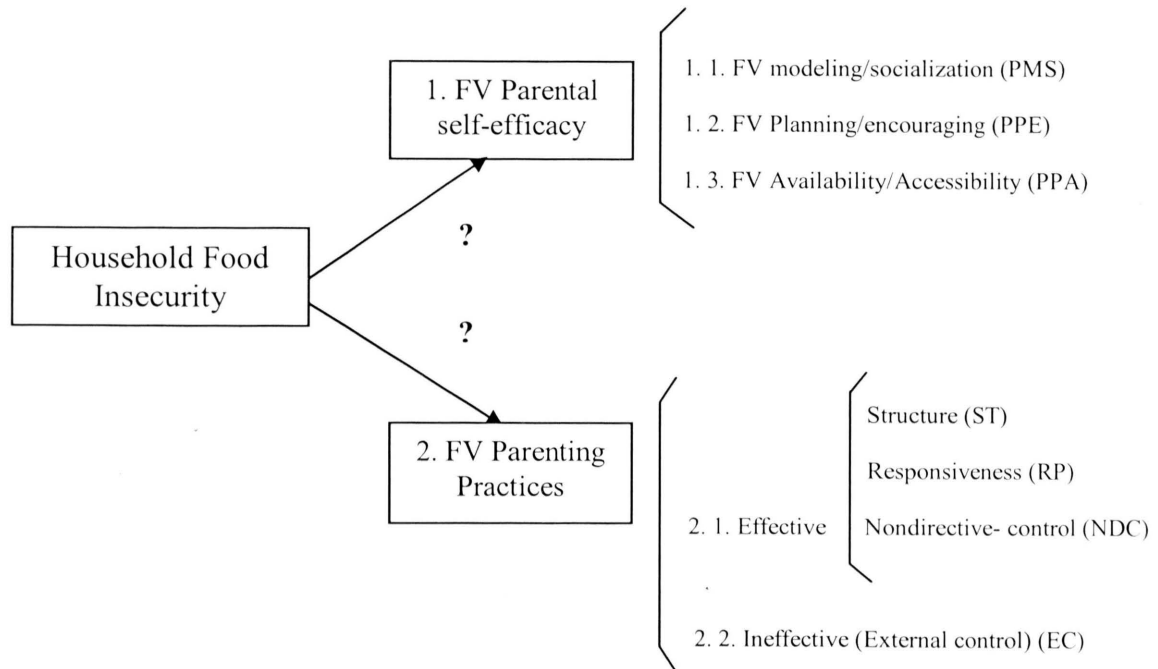


Figure 1: Research questions

Note: FV = Fruit and vegetable

Null Hypotheses

There is no difference in parental self-efficacy to provide/encourage children's FV consumption by food security status.

There is no difference in parenting practices to promote children's FV consumption by food security status.

Significance

Food insecurity may influence parent-child interactions and affect central aspects of children's development such as overall health and weight status. The simultaneous

increase of food insecurity and childhood obesity in the U.S. has raised the question whether food insecurity is related to childhood obesity. It has been hypothesized that food insecurity may indirectly affect children's weight status by first affecting parenting (Bronte-Tinkew et al., 2007). However, the causal mechanisms connecting poverty to food insecurity and to childhood obesity still remain unclear. This study investigated whether food insecurity influences parental self-efficacy and parenting practices to promote FV consumption among mothers of 5-8 year old children, an age group with the greatest increase in obesity prevalence (Ogden & Carroll, 2010). Based on the premise that parents have a strong influence on their children's eating and food choices, examining the impact of food insecurity on parental self-efficacy and food-related parenting practices may provide important insights into obesity prevention efforts.

CHAPTER II

REVIEW OF LITERATURE

Defining Food Insecurity

Households are considered to be food-insecure if they "lack consistent access to nutritionally adequate foods" (Campbell, 1991; Carlson et al., 1999; Nord & Hopwood, 2007). Food-insecure households exist somewhere along a continuum. In the less severe range, household members may experience anxiety about their ability to access adequate food. In the more severe range, household members may have their food intake reduced and their normal eating patterns disrupted because of limited resources (Bickel, Nord, Price, Hamilton, & Cook, 2000). Certain risk factors such as single parenting, ethnic background, and education level have cumulative impacts on the risk of food insecurity (Hamilton et al., 1997). Thus, households with multiple risk factors (e.g., Hispanic, single-parent headed households) have greater odds of experiencing food insecurity. The concept of food insecurity as a complex, multidimensional phenomenon emerged from research conducted in the 1980s and early 1990s. Radimer and colleagues (1992) identified four dimensions of household food insecurity based on their research with low-income women in upstate New York: 1) quantitative (not enough food); 2) qualitative (reliance on inexpensive, nutritionally-poor foods); 3) psychological (anxiety or stress associated with trying to meet daily food needs); and 4) social (having to acquire food through socially unacceptable means such as charitable organizations, buying food on

credit, and in some cases, stealing) (Toronto Public Health, 2006, p.54).

A conceptual framework was developed based on these important findings. The four dimensions of food insecurity and their associated dietary manifestations at the individual and household levels are shown in Table 1. The social and psychological dimensions have been described by some researchers as consequences of food insecurity (Hamelin et al., 1999).

Table 1

*Dimensions of Food Insecurity and its Dietary Manifestations According to Radimer (1990)*¹

	<i>Individual level</i>	<i>Household level</i>
<i>Quantitative</i>	Insufficient intake	Food depletion
<i>Qualitative</i>	Nutritional inadequacy	Unsuitable food
<i>Psychological</i>	Lack of choice, feelings of deprivation	Food anxiety
<i>Social</i>	Disrupted eating patterns	Food acquisition in socially unacceptable ways

Note. ¹ From Kendall et al. (1995)

The experience of food insecurity is considered a dynamic phenomenon. Research refers to this experience as a temporal sequence of events characterized by frequency, duration, and periodicity (Tarasuk, 2001). As shown in Table 1, the experience of food insecurity differs at the household and individual levels. While at the individual-level experiencing food insecurity is related to food consumption and allocation, at the household level, the effects of food insecurity are related to food supply management and

problems with food acquisition (Campbell & Desjardins, 1989). Furthermore, differences in the perception and experience of this phenomenon differ between children and adults, men and women, and individuals and households as a whole. This variability represents a challenge when trying to determine a defining feature of the food insecurity experience.

The Psychological and Social Dimensions of Food Insecurity –

Negative Impacts on Parents and Children

Most of the research on food insecurity to date has been done in domiciled families with children, which has contributed to the current understanding about the psychosocial and developmental effects of food insecurity at the household and individual levels. At the household level, food insecurity has been associated with disrupted household dynamics evidenced by parental irritability, anger, parental unavailability, and conversation gap with children (Hamelin et al., 1999, 2002). At the individual level, food insecurity was found to cause unnecessary anxiety as parents struggle to find ways to feed themselves and their children and to increase parents' reliance on socially unacceptable ways to meet their basic dietary needs (Hadley & Patil, 2006; Huang et al., 2010). Figure 2 summarizes the psychological and social effects of food insecurity on parental well-being.

In children and adolescents a variety of negative outcomes have been linked to food insecurity such as lower test scores, poorer school achievement, higher frequency of behavioral and health problems (Alaimo, Olson, & Frongillo, 2001), poorer reported health (Stuff et al., 2004; Vozoris & Tarasuk, 2003), overweight and obesity (Adams,

Grummer-Strawn, & Chavez, 2003; Townsend, Pearson, Love, Achterberg, & Murphy, 2001), and chronic depression and suicide symptoms (Alaimo, Olson, & Frongillo, 2002).

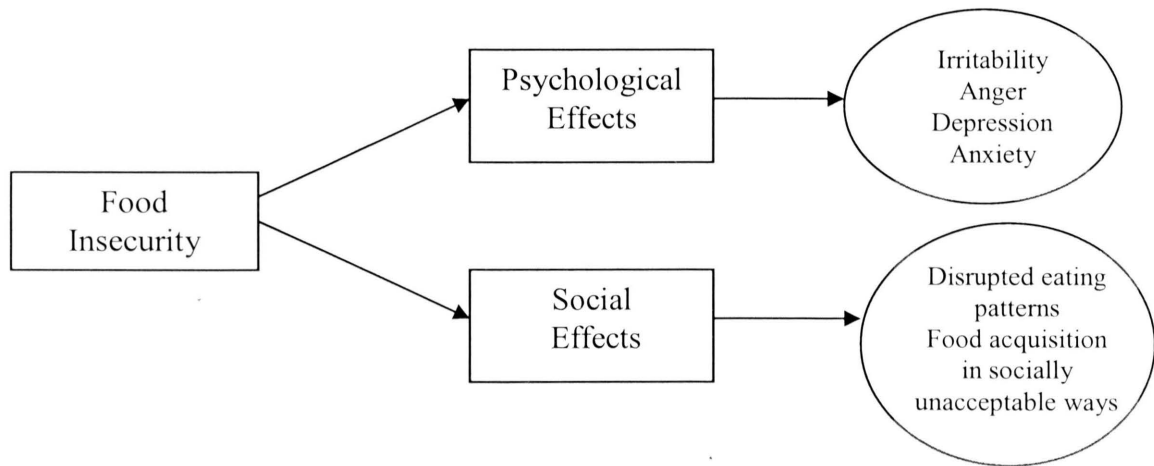


Figure 2: Negative effects of food insecurity on parent psychosocial well-being

Estimation of Food Insecurity

The need for understanding this important phenomenon has driven investigators to apply quantitative research techniques and complex statistical procedures to develop a valid scale for the measurement of household food insecurity. Initially, the four dimensions of food insecurity listed in Table 1 were considered the “core and essential components” of food security measurement (Campbell, 1991). However, subsequent work revealed that the core components and the potential consequences or manifestations of food insecurity had to be carefully distinguished (Tarasuk, 2001).

In the U.S., food insecurity has been estimated by experimental measures like the one used by the United States Department of Agriculture (USDA) (Bickel et al., 2000)

which attempts to address the issues of varying household needs and behavior. Since 1995 the USDA has annually published statistics on the extent of food insecurity in American households. These estimates are based on a survey measure developed by the United States Food Security Measurement Project which is an “ongoing collaboration among federal agencies, academic researchers, and private organizations” (Food Insecurity and Hunger in the United States-An assessment of the measure. 2006, pp 13). The USDA estimates of food insecurity are based on a set of questions that address perceptions and self-estimations associated with difficulty in meeting food needs. The questions cover a wide range of severity of food insecurity specifying the period (last 12 months) and the lack of resources as the reason for the behavior or experience (e.g. “we couldn't afford more food,” “there was not enough money for food.”). On the basis of the number of food-insecure conditions reported, households are classified into one of four categories: high food security, marginal food security, low food security, and very low food security (Bickel et al., 2000).

Food Insecurity and Children’s Dietary Behavior

Food insecurity has been associated with poor nutritional intakes in a variety of population groups (Kaiser et al., 2002; McIntyre et al., 2003; Nelson, 2000; Rose, 1999; Tarasuk & Beaton, 1999). This appears to be a logical consequence for those living in poverty and at higher risk for food insecurity (i.e., low-income and minority groups). Research shows that households with limited resources tend to spend less on food overall, but especially less on healthy foods such as fruit and vegetables that are lower in energy,

however, more costly (Drewnowski & Specter, 2004). Children from low- income households consume fewer fruit and vegetables in comparison to children from high-income households (Mushi-Brunt et al., 2007). Hispanic children are more likely to have a poorer diet quality than children from other ethnic and racial backgrounds (Krebs-Smith et al., 1996; Munoz, Krebs-Smith, Ballard-Barbash, & Cleveland, 1997). To date, most studies investigating the effects of food insecurity on child's dietary intake have been cross-sectional. Prospective studies examining the longitudinal effects of food insecurity as well as additional research aimed at understanding how low-income families manage limited food resources are needed. In addition, the underlying mechanisms by which food insecurity affects children's dietary behavior have not been elucidated and more research is warranted to understand these phenomena.

Parental Self-Efficacy as Predictor of Parenting Quality

Parental self-efficacy has been recognized as a central correlate of parenting quality (Bugental, Blue, & Cruzcosa, 1989; Cutrona & Troutman, 1986; Teti & Gelfand, 1991) and is broadly defined as parents' self-referent estimations of competence in the parental role (Coleman & Karraker, 1997). The concept of parental self-efficacy emerged from the general self-efficacy theory proposed by Albert Bandura (Bandura, 1994). Self-efficacy represents "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994). Self-efficacy, therefore, is important to human functioning as it influences people's emotions, thoughts, motivation and behavior.

Parents who present high self-efficacy are able to “effectively” guide their children through the different stages of development which in turn fosters positive developmental outcomes. For instance, high maternal self-efficacy has been related to maternal sensitivity, warmth (Teti & Gelfand, 1991) and responsiveness (Stifter & Bono 1998). These maternal qualities are considered protective against the development of child and adolescent behavioral problems (Pettit & Bates, 1989; Lamborn, Mounts, Steinberg, & Dornbusch, 1991) including eating disorders. On the other hand, parents who demonstrate low self-efficacy may struggle to meet familial demands are at higher risk for stress and depression (Sanders & Woolley, 2005) and use less competent parenting practices (Bugental & Cortez 1988). Depressed mothers are less likely to use healthy feeding strategies, such as breastfeeding, than non-depressed mothers (Paulson, Dauber, & Leiferman, 2006). Breastfeeding has been identified as a protective factor against child overweight (Owen, Martin, Whincup, Smith, & Cook, 2005). Depressed mothers also tend to interact less with their children (Lehrer, Crittenden, & Norr, 2002; Teti & Gelfand, 1991) which may lead to a reduced monitoring of their children’s dietary intake. Low- income, depressed parents were also shown to allow their children to watch more television and to snack while watching than non-depressed parents (Connors, Tripathi, Clubb, & Bradley, 2006; Wachs, 2008). These behaviors have been associated with increased energy intake, less physical activity, and obesity (Rao, 2008). The exact nature of the influence of self-efficacy on parenting behavior is still a matter of debate. Self-efficacy can be an antecedent, a consequence, a mediator or a transactional variable

(i.e., bidirectional interactions between parent and child) (Jones & Prinz, 2005). Table 2 presents the various conceptualizations of parental self-efficacy (PSE) described in the literature and the variables associated with them.

Parenting Practices and Children's Dietary Behavior

Parenting practices encompass a set of practices that foster optimal physical, emotional, social, and cognitive development in children (Coleman & Karraker, 1997). These tangible child-rearing behaviors parents perform every day are influenced by parental self-efficacy beliefs and shaped by environmental factors. Parents' self-efficacy beliefs generate, organize, and shape, as well as moderate the effectiveness of their parenting practices (Darling & Steinberg, 1993; Goodnow & Collins, 1990) and are directly related to child development (Cole, Barrett, & Zahn-Waxler, 1992; Kochanska, 1997). Mothers who perceive themselves as competent in their role as caregivers are likely to use more effective child-rearing strategies (Teti & Candelaria, 2002) and act as constructive partners in their children's development (Bandura, 1997; Coleman & Karraker, 1997). Environmental factors such as food insecurity may cause parents to alter their parenting strategies to cope with home food shortages and/or inadequate access to nutritious foods. A national study with mothers of infants aged 9 and 24 months found that food-insecure mothers reported lower breastfeeding rates and early weaning in comparison to food-secure mothers (Bronte-Tinkew et al., 2007). These parenting practices may be detrimental for their infant's nutritional and health status and have been linked to obesity. Parenting practices are performed to promote specific behaviors in their children.

Table 2

*Parental Self-efficacy (PSE) Conceptual Frameworks **

Conceptualization of PSE	Related variables	Example
Antecedent	Parental competence	Individuals with high PSE are confident in their ability to acquire and use effective parenting skills which in turn leads to higher levels of parental competence.
Consequence	Ecological context Low socioeconomic status (SES) Neighborhood factors Child characteristics (e.g., ADHD, autism)	Parents with low education levels and/or financial pressures may face challenges that undermine their ability to develop PSE. Lower levels of PSE compromises their level of parental competence and creates a vicious circle that reinforces their low levels of PSE.
Mediator	Ecological variables Parental competence	Environmental factors such as maternal depression and/or lack of adequate social support may reduce parental confidence, leading to less effective parenting which in turn reinforces low levels of PSE.
Transactional Variable	Parent satisfaction Stress Child outcomes	Parents with high PSE show high levels of satisfaction from their parenting behaviors. Therefore, high PSE reinforces the continuation of effective parenting behaviors and increases the likelihood of positive child outcomes and PSE. On the other hand, parents with low PSE may experience high levels of frustration, and their children may suffer from behavioral problems and poor outcomes which erodes their sense of PSE.

Note. *Adapted from “Parents, caregivers and families: Parental self-efficacy and competence” - Children of Parents with a Mental Illness National Initiative (COPMI).

Copyright by AICAFMHA ©2003

ADHD = Attention deficit hyperactivity disorder; PSE = Parental Self-efficacy

In the child eating context, food-related parenting practices have been shown to directly affect children's eating behavior and nutritional outcomes. Parents create a "home food environment" where healthy or unhealthy eating habits can be promoted (Birch & Davison, 2001). It is in this environment where children's early experiences with food and eating take place and where children learn to self-regulate their eating and develop their food preferences (Birch & Fisher, 1998). Parenting practices that foster healthy patterns of preference and food selection are more likely to reinforce healthier dietary habits in children and prevent the development of obesity.

A study with parents of pre-school aged children examining parenting practices that promote healthy eating identified a set of "effective" and "ineffective" parenting practices to increase children's FV consumption. (O'Connor et al., 2010a). Parenting practices characterized by non-directive control, responsiveness, and structure were positively associated with children's FV consumption at home whereas parenting practices characterized by external control were negatively associated with children's home FV consumption. Table 3 presents a summary of the effective vs. ineffective parenting practices described by O'Connor and colleagues (2010).

Non-directive control refers to parents involving their children in the selection and preparation of FV. Examples of such practices include allowing the child to choose the fruits or vegetables for meals and snacks or helping with the home preparation of fruit or vegetables. Responsive parenting practices promote children's FV consumption by the use of praise when the child eats FV or by encouraging the child to taste FV. Parenting practices that provide structure contribute to the creation of a home food environment

that increases the availability and accessibility of FV. These practices include role modeling and the planning of structured family meals. In contrast, practices that use external control were found to be ineffective and may even reduce children's FV consumption (Connor, et al., 2010a). Rewarding children with sweets when they eat FV or insisting children sit at the table until they eat a fruit or vegetable are some examples of parenting practices that use external control.

Most of the research on food-related parenting practices has focused on mothers. Mothers are usually considered the “nutritional gatekeepers” of the home food environment and control a majority of what is consumed at home (Wansink, 2006). According to parental surveys, this represents an average of 83% of the food their children eat at home (Wansink, 2006). In addition, mothers influence their children's home food environment by dictating food availability, preparation and quantity (Cooke et al., 2004; Fisher, Mitchell, Smickilas-Wright, & Birch, 2002; Gibson, Wardle, & Watts, 1998) as well as through role modeling (Brewis & Gartin, 2006). Parental modeling plays an important role in the development of the eating patterns and habits children follow for life. Parents' reluctance to follow nutritional guidelines in their own dietary practices has been found to discourage their children from improving their dietary quality (Brewis & Gartin, 2006).

The Role of Parenting on the Food Insecurity-Obesity Paradox

Food insecurity and childhood obesity have long been considered two separate public health problems. However, the concurrent increase in food insecurity and childhood obesity in the United States has raised a question about whether these issues may be

related. Some studies have shown that children living in food-insecure households are more likely to be obese than children who are food-secure (Alaimo et al., 2001; Bhattacharya, Currie, & Haider, 2004; Jyoti, Frongillo, & Jones, 2005).

Table 3

*Parenting Practices Related to Children's Fruit and Vegetable Consumption**

	Definition
Perceived Effective	
Nondirective control	Parenting practices that promote involvement of the child in the selection and preparation of fruit and vegetables at home.
Structure	Parenting practices that create a home food environment that increases the availability and accessibility of fruit and vegetables while decreasing the availability of energy dense foods (e.g. chips, cookies, candies) by role modeling, organized family meals, etc.
Responsiveness	Parenting practices that are responsive to the child's eating context by praising and encouraging children's fruit and vegetable consumption.
Perceived Ineffective	
External control	Parenting practices that are more reactive to a child's behavior (e.g. restricting intake of available foods, pressuring them to eat more, punishing them to achieve behaviors, etc.)

Note. * This table was developed based on the article by O'Connor and colleagues (2010 a)

Plausible mechanisms that could explain the association between food insecurity and childhood obesity include overconsumption of inexpensive energy dense foods (Dietz, 1995; Drewnowski & Specter, 2004), overcompensation during periods when food is available (Hamelin, et al., 1999; Olson et al., 2007; Smith & Richards, 2008),

metabolic changes that allow for a more efficient use of energy (Alaimo et al., 2001), fear of food restriction (Polivy, 1996), and higher sensitivity to hunger, disinhibition, and environmental cues (Provencher, Drapeau, Tremblay, Despres, & Lemieux, 2003). Alone or in combination these factors can potentially affect a child's dietary intake and nutritional status and may be expected to have long-term detrimental effects.

Parenting seems to play a role in the two first mechanisms (i.e., overconsumption and overcompensation) that link food insecurity with childhood obesity. As discussed earlier, parents influence their children's home food environment and are responsible for the preparation, quantity, and quality of the food children consume at home. Since parenting itself is presumed to exist within an ecological framework, sources of contextual stress such as food insecurity can directly or indirectly affect parenting practices by influencing parent psychological well-being (Belsky, 1984). Parental self-efficacy and parenting practices are directly related to children's behavior and outcomes. Therefore, the negative impacts of food insecurity on specific aspects of parenting can indirectly affect children's dietary behavior and body weight. Figure 3 attempts to describe these hypothetical associations.

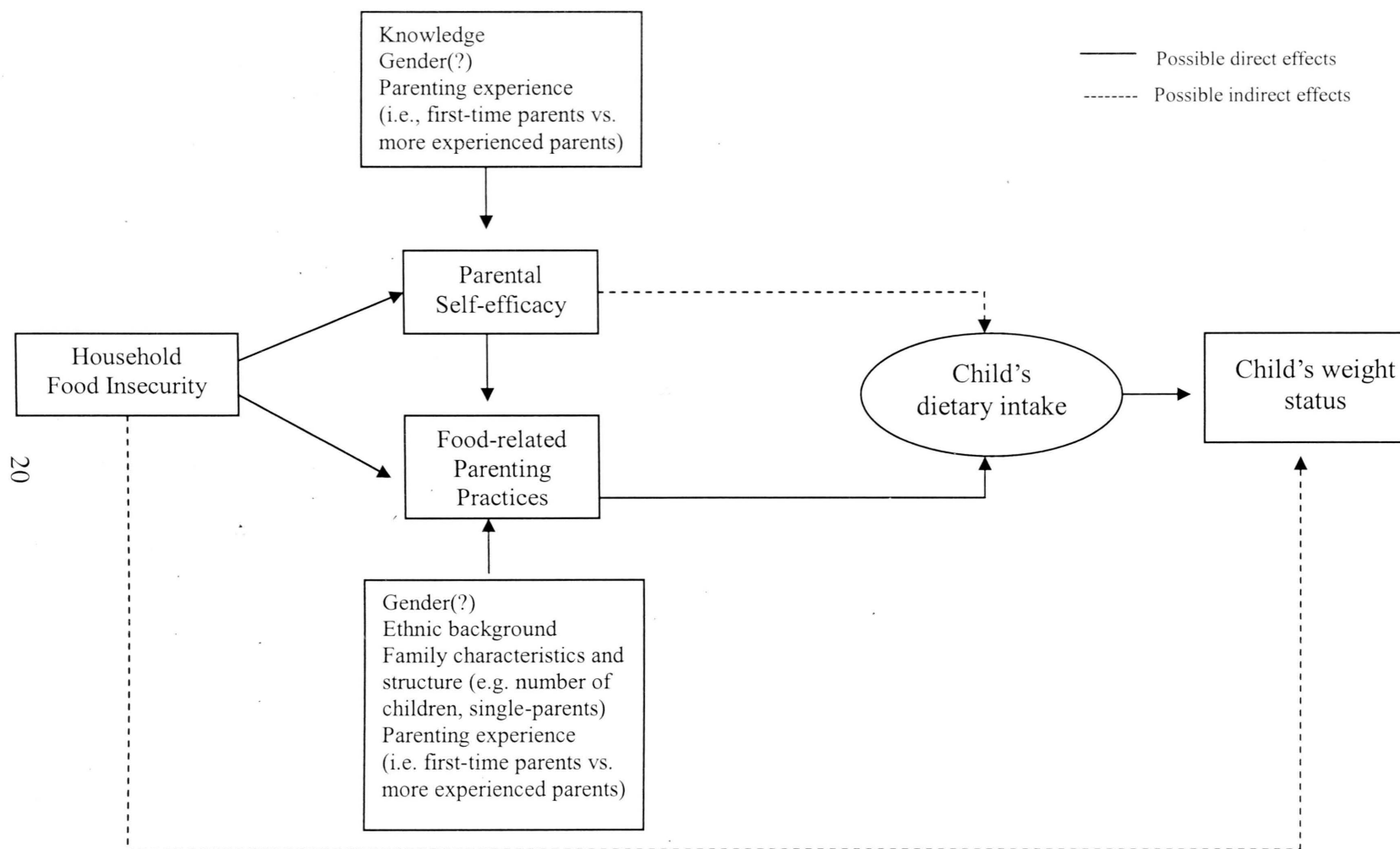


Figure 3: Hypothetical model linking food insecurity to parental self-efficacy, food-related parenting practices and child's weight status

CHAPTER III

METHODS

The purpose of this study was to explore associations between food insecurity, parental self-efficacy, and parenting practices related to children's FV consumption. The procedures followed for the study are presented in this chapter under the following headings: a) Study Design, b) Participants, c) Measures, d) Data Control and Management, and e) Statistical Analyses.

Study Design

A secondary analysis of baseline data collected for the pilot study of an obesity treatment program called Helping HAND investigated the associations between food insecurity, fruit and vegetable parental self-efficacy and parenting practices.

Helping HAND

Helping HAND was a 6-month obesity treatment program delivered at four Texas Children's Pediatric Associates (TCPA) clinics in Houston, Texas between January 2007 and July 2010 (O'Connor, Hilmers, Watson, Baranowski, & Giardino, 2011). Helping HAND was designed to promote healthy eating and physical activity among overweight or obese 5-8 year old children (body mass index [BMI] \geq 85percentile but $<$ 99 percentile) and their families, and to encourage effective parenting practices across seven different behaviors: eat more fruit, eat more vegetables, be more active, drink fewer

sweetened drinks, drink more water, watch less television, and eat healthy snacks. A participant family was defined as a minimum of one eligible child and parent. Participants were identified by using flyers, recruitment forms, on-site recruiting at TCPA clinics, and by doctor's referral. Eligible parents were able to read and write in Spanish or English and were legal guardians or primary caretakers of a 5-8 year old child who was overweight or obese, did not present with any co-morbidities, attended one of the four participant TCPA clinics, and was a member of the Texas Children's Health Plan (TCHP), a regional Medicaid and Children's Health Insurance Program (CHIP) provider. A sample of 40 families were enrolled in the study, consented and assigned to intervention or control groups using a random number sequence protocol.

Data from mother/child dyads were collected at three time points: at baseline, at the 7th month and at the 14th month. This study used data collected at baseline which included: (1) parent and child height and weight, (2) self-reported information on parental self-efficacy, and food-related parenting practices using validated questionnaires, (3) household food security status, and (4) demographics. Questionnaires were available to participants in English or Spanish and all data were collected by trained bilingual staff at the participants' pediatric clinic.

The study was approved by the Baylor College of Medicine and Texas Woman's University Institutional Review Boards and executed according to their standards. All participants provided informed consent and assent to participate in the study.

Participants

Participants were mothers of 5-8 year old overweight or obese children who participated in Helping HAND. Exclusion criteria were incomplete baseline data defined by completion of less than 75% of the items in each parental self-efficacy and parenting practices sub-scale as well as missing values for food security assessments and demographic data. Nine mothers were excluded for analysis due to missing data leaving a final sample of thirty-one.

Measures

Demographic Data

All participant parents or legal guardians completed a socio-economic demographic survey that assessed child, parent and household characteristics. This questionnaire was available in English or Spanish.

Anthropometrics

Parent and child height and weight were obtained by trained study staff. Height without shoes was measured twice to the nearest 0.1 centimeter using a portable stadiometer (Seca-214, Hanover, MD). If there was a difference of more than 0.5 cm between the first two measurements, a third measurement was obtained. Body weight with light clothing and without shoes was measured twice to the nearest 0.1 Kg using an electronic scale (Health o meter® 752KL, Bridgeview, IL). If there was a difference of more than 0.2 kg between the two recorded weights, a third measurement was obtained.

The mean of the two last measures was used to calculate children's BMI z-score and BMI percentile.

Food Insecurity

Household food security information was collected from participants at baseline. The 18-item USDA Core Food Security Module was used to assess and measure household food security status (Bickel et al., 2000). This instrument has been used in national surveys and its reliability and validity have been established with low-income, Spanish-speaking mothers who constituted the majority of the study sample (Frongillo et al., 1997, 1999; Harrison, Stormer, Herman, & Winham, 2003).

According to USDA guidelines (Bickel et al., 2000) households are categorized into four levels of food security as follows: (a) high food security, (b) marginal food security, (c) low food security, and (d) very low food security.

Parental Self-Efficacy (PSE) and Parenting Practices (PP)

Parenting practices to promote children's FV intake and PSE were measured using two validated questionnaires: fruit and vegetable parenting practices (FVPP) and self-efficacy fruit and vegetable parenting practices (SEFVPP). These questionnaires were available to participants in English or Spanish.

Self-efficacy fruit and vegetable parenting practices questionnaire (SEFVPP). Parental self-efficacy to provide/encourage children's FV consumption was assessed with a 20-item questionnaire with 3 subscales: parental self-efficacy for modeling FV consumption, planning/encouraging FV consumption, and making FV

available (Cullen et al., 2000). The reliability and validity of this questionnaire have been reported (Cullen et al., 2000). This questionnaire has a 3-point response category from “not sure” to “very sure” with higher mean scores in each subscale representing higher parental self-efficacy.

Fruit and vegetable parenting practices questionnaire (FVPP). The FVPP is a 39-item questionnaire consisting of two subscales: Ineffective (external control) and Effective (responsiveness, structure and non-directive control) FV parenting practices. Acceptable internal consistency reliability of this instrument has been reported in a group of health professionals (O'Connor et al., 2010). Parental behaviors such as non-directive control, responsiveness, and structure have been positively associated with children's home fruit and vegetable consumption (O'Connor et al., 2010). Non-directive control refers to parents involving their children in the selection and preparation of FV, a practice that has been considered to be effective in increasing children's FV consumption (O'Connor et al., 2010). Some of the items assessing non-directive control were: “asking your child to choose the fruits or vegetables for meals and snacks” or “asking your child to help with fruit or vegetable preparation.”

Responsiveness involves the use of parenting practices that encourage FV consumption. Among the items that assessed responsiveness were: “praising your child when you see him or her eating a fruit or a vegetable” or “encouraging your child to try a couple of bites of the fruit or vegetable”. Parenting practices that provide “structure” have also been categorized as effective because they promote the creation of a home food

environment that increases the availability and accessibility of FV by role modeling or by planning structured family meals. Structure was measured by items such as “show your child that you enjoy eating fruit and vegetables” or “include some form of fruit or vegetable in most meals.” The use of external control has been considered to be ineffective in increasing children’s FV consumption and may even reduce consumption (O'Connor et al., 2010).

“Reward your child with sweets if they eat their fruit or vegetable” or “insist your child sit at the table until they eat their fruit or vegetable” represent the two items assessed in this subscale. The FVPP questionnaire has a 4-point response category from “never” to “always.” Higher mean scores among non-directive control, responsiveness, and structure subscales represented greater “effective” fruit and vegetable parenting practices, whereas higher mean scores among the external control subscale represented greater “ineffective” fruit and vegetable parenting practices.

Data Control and Management

De-identified data was stored on a secured Baylor College of Medicine server with access limited to the study investigator, Angela Hilmers, MD. In addition, a back-up file was kept in accordance with Baylor College of Medicine policies. All data analyses took place at the Children’s Nutrition Research Center, Houston, TX.

Statistical Analysis

In this research model the dependent variables were FVPP and PSE; the independent variable was food security household status. Subjects were grouped as food

secure and insecure according to the protocol developed by the USDA (see Bickel et al., 2000). Because of the small sample, high food security and marginal food security were combined to form the food-secure group. Low food security and very low food security comprised the food-insecure group.

Descriptive statistics and chi-squared tests were used to examine demographic differences between food-secure and insecure groups including age, income, and educational level. In addition, demographic characteristics of the nine subjects excluded from this study were compared to the sample of thirty-one subjects included in the analysis to investigate systematic differences between groups. Mean scores were calculated for each FVPP and SEFVPP subscale. Independent t-tests investigated differences in PSE and FVPP mean scores between food-secure and food-insecure groups.

Since the nature of this study was exploratory and this secondary analysis was conducted using pilot data, results $P < .05$ were considered significant, and results at the $.05 < P < 0.1$ level were considered marginally significant. All statistical analyses were performed using PASW 19.0 (SPSS Inc, Chicago, IL, 2009).

CHAPTER IV

RESULTS

Participants

Participants were 31 mothers of 5-8 year old overweight or obese children who had participated in Helping HAND. Nine mothers or 22.5% of the original sample (N=40) were excluded due to missing data. The mean age of the mothers was 34 years (SD± 7.9). Twenty-five (80.6%) were Hispanic, four (12.9 %) were African American and two (6.5%) were Caucasian. Twenty-one (67.7%) reported a high school education or less; ten (32.3 %) reported some college or more advanced studies. Fourteen (45.2%) reported an annual income lower than \$20,000, the official poverty threshold for 2007 when demographic data was collected (see Federal Register, Vol. 72, No. 15, for more information). Characteristics of the sample are shown in Table 4.

No significant differences were found between the nine subjects excluded and the thirty-one subjects included in the study (Table 5).

Table 4

Participant Characteristics (N=31)

Variables	
Age-years, mean (\pm SD)	33.7 (\pm 7.9)
Race/ethnicity n(%)	
Hispanic/Latino/Mexican-American	25 (80.6)
African-American	4 (12)
Other	2 (6.5)
Education level n (%)	
High school/GED or less	21 (67.7)
Annual household income n (%)	
< \$20,000	14 (45.2)

Note. GED = General Educational Development Test that gives the opportunity to earn a high school equivalency diploma

Table 5

Differences between Included and Excluded Subjects

Variables	Included (N=31)	Excluded (N=9)	<i>P</i> value
Age-years, mean (\pm SD)	33.7 (\pm 7.9)	31.7 (\pm 5.9)	.43
Race/ethnicity n (%)			
Hispanic/Latino/Mexican-American	25 (80.6)	8 (88.9)	.57
Non-Hispanic	6 (19.5)	1 (11.1)	.57
Education level n (%)			
High school/GED or less	21 (67.7)	6 (66.7)	.95
Annual household income n (%)			
< \$20,000	14 (45.2)	3 (33.3)	.53

Note. *p* value < .05 is considered significant

SD= Standard Deviation

GED = General Educational Development

Food Insecurity and Parental Outcomes

More than half of the sample included in this analysis (n=31) was food insecure (64.5%). Differences between food-secure and insecure groups were not significant except for BMI. Parents in the food-insecure group had a higher BMI compared to parents in the food-secure group (mean difference of -4.47; 95% CI -8.54 to -.40; P=.03) (Table 6). Results from independent t- tests showed no significant differences between fruit and vegetable parenting practices and parent self-efficacy by food security status. There was a trend towards a decrease in parent self-efficacy to make FV available in the home in the food-insecure group, but the difference was only marginally significant (P=.06) (Table 7).

Table 6

Comparisons of Participant Characteristics by Household Food Security Status (N=31)

Variables	Food secure (n=11)	Food insecure (n= 20)	P value
Age-years, mean (\pm SD)	31.36 (\pm 9.9)	35.05 (\pm 6.6)	.28
Race/ethnicity n (%)			
Hispanic	10 (90.9)	15 (75)	
Non-Hispanic	1 (9.1)	5 (25)	.25 ^a
Education level n (%)			
High school/GED or less	6 (54.5)	15 (75.0)	.29 ^a
Annual household income n (%)			
< \$20,000	5 (45.5)	9 (45.0)	.98 ^a
Spanish speaking n (%)	6 (54.4)	13 (65.0)	.58 ^a
BMI, mean (\pm SD)	28.94 (\pm 3.6)	33.41 (\pm 7.5)	.03 ^b

Note. ^a *p* values from means; ^b *p* values <.05 are considered significant; BMI = Body mass index, GED = General Educational Development Test; SD = Standard deviation

Table 7

Differences across PSE and FVPP Sub-scales by Household Food Security Status (N=31)

	Food secure (n=11) Mean (\pm SD)	Food insecure (n=20) Mean (\pm SD)	<i>t</i> -test	<i>p</i> value
FV Parenting Practices				
Structure	2.69 (\pm .71)	2.76 (\pm .55)	-0.28	.78
Responsiveness	3.11 (\pm .71)	2.85 (\pm .57)	1.09	.28
Non directive control	2.27 (\pm .91)	2.20 (\pm .86)	0.22	.83
External control (Ineffective)	1.61 (\pm .44)	1.46 (\pm .57)	0.75	.46
FV Parental Self-Efficacy				
Planning/encouraging	2.64 (\pm .28)	2.47 (\pm .57)	0.91	.37
Modeling/socialization	2.86 (\pm .24)	2.68 (\pm .54)	1.08	.29
Availability/accessibility	2.67 (\pm .33)	2.32 (\pm .65)	1.93	.06*

Note. FV= fruit and vegetable; PSE=Parental self-efficacy; FVPP=Fruit and vegetable parenting practices; SD=Standard deviation; *.05> *p* value <.10 is considered marginally significant. FVPP range from 0-4; PSE range from 1-3.

CHAPTER V

DISCUSSION

The purpose of this study was to explore the relationship between food insecurity, PSE, and parenting practices related to children's FV consumption. In this sample of predominantly Hispanic mothers, food insecurity was not significantly associated with PSE and FVPP. A trend towards a decrease in PSE to make FV available for children was observed in the food-insecure group. This observation corresponds to that of previous studies where an inverse relationship between food insecurity and home availability of fruit and vegetables was found (Kaiser et al., 2003; Matheson et al., 2002). Parents' inability to purchase fruit and vegetables due to lack of resources is translated into a decreased home availability of these foods for child consumption. A recent study examining characteristics of the physical and social environment on the home availability and accessibility of fruit and vegetables among low-income Hispanic families revealed a positive association between food insecurity and home availability and accessibility of fruit and vegetables (Dave, Evans, Pfeiffer, Watkins, & Saunders, 2010). However, when home and parental factors that promote FV intake were added to the final model, this relationship was no longer significant, suggesting that parental factors may play a role mediating the effect of food insecurity on home availability and accessibility of fruit and vegetables.

A higher BMI was observed among food-insecure parents in this study sample. Several hypotheses have been proposed to explain the association between food insecurity and obesity in adults. First, it has been suggested that childhood food insecurity may have long term effects leading to obesity in adulthood (Kaiser & Townsend, 2005). Second, food-insecure adults are more likely to over rely on low cost, energy-dense foods (Adams et al., 2003; Basiotis & Lino, 2003; Dietz, 1995; Drewnowski & Specter, 2004; Heflin, Siefert, & Williams, 2005) and decrease their FV purchase and consumption, significantly increasing their risk for obesity (Kendall et al., 1996). Finally, food insecurity has been associated with psychological and behavioral changes, such as preoccupation with food, anxiety, stress, depression, and physical limitations in adults, all of which can also lead to obesity (Adams et al., 2003; Frongillo, 2003; Olson, 1999). Future research is needed to understand this phenomenon.

Research on home food environment has emphasized the importance of the parental role in increasing the dietary quality of children. Demographic characteristics of the family and household income may also play an important role (Crockett & Sims, 1995). A number of studies have shown that Hispanic families consume a lower variety of FV in comparison to other ethnic groups, and children from low- income households reported lower FV intake and FV home availability (Kaiser et al., 2003; Matheson et al., 2002; Mushi-Brunt et al., 2007). In this study, associations between socioeconomic variables and children's fruit and vegetable intake were not investigated. However, research examining the factors that influence home availability of fruit and vegetables in

Hispanic households is lacking, and future research with larger, more representative samples of this population is warranted.

The lack of significant associations between food insecurity and parenting practices and other parental self-efficacy subscales found in this study may be a result of the small sample size. In addition, the FVPP questionnaire was not tested with this population. It is possible that some of the items were not adequate for these participants, resulting in sub-scales that might not reflect true behaviors. Current literature supports the hypothesis that food insecurity could lead to childhood obesity through diverse mechanisms such as parents' over reliance on inexpensive, energy-dense foods or detrimental dietary practices like overcompensation when food is available.

The impact of food insecurity on parenting may even affect central aspects of children's development earlier in life. A longitudinal study using a nationally representative sample found that food-insecure mothers of children aged 9 – 24 months were more likely to have lower breastfeeding rates and begin weaning foods at an earlier age compared to food-secure mothers (Bronte-Tinkew et al., 2007). The anti-obesity effects of breastfeeding (Arenz, Ruckerl, Koletzko, & Von Kries, 2004; Harder, Bergmann, Kallischnigg, & Plagemann, 2005; Owen, Martin, Whincup, Smith, & Cook, 2005) and the association between early introduction of solid foods and increased odds of obesity have been documented (Huh, Rifas-Shiman, Taveras, Oken, & Gillman, 2010). Despite these findings, the causal mechanisms connecting food insecurity to childhood obesity remain unclear. Further research is needed to elucidate the pathways by which food insecurity may affect parenting and ultimately children's weight status.

Limitations

This study has several limitations. The findings presented are based on self-reported data which can potentially lead to information and misclassification bias. The cross-sectional design of this study precludes the determination of the direction of effects. This research used data from a pilot study with a small sample size, decreasing our ability to adequately capture significant differences between groups. The study sample was predominantly Hispanic. Therefore, the results may not be generalized to a broader population.

Conclusions and Future Prospects

Parents have a strong influence on their children's eating and food choices. Socioeconomic and environmental stressors such as food insecurity may negatively impact parental competence to provide a healthy home food environment for their children by decreasing parental self-efficacy and increasing parental stress. Understanding the underlying factors that contribute to poor children's nutritional outcomes is crucial in light of the high prevalence of childhood obesity in low-income families. Although this study was underpowered to show significant relationships, there was a trend towards a decrease in parent self-efficacy for making fruit and vegetables available in the home of food-insecure parents. Additional research with larger samples is warranted to more precisely estimate possible differences between food-secure and food-insecure parents. In addition, longitudinal studies examining the impact of food insecurity on parental self-efficacy and food-related parenting practices are needed and may provide important insights into obesity prevention efforts.

REFERENCES

- Adams, E.J., Grummer-Strawn, L., and Chavez, G. (2003). Food security is associated with increased risk of obesity in California women. *Journal of Nutrition*, 133, 1070–1074.
- Alaimo, K., Olson, C., & Frongillo, E. (2001). Low family income and food insufficiency in relation to overweight in US children: is there a paradox? *Archives of Pediatric and Adolescent Medicine*, 155, 1161–1167.
- Alaimo, K., Olson, C., & Frongillo, E. (2002). Family food insufficiency, but not low family income, is positively associated with dysthymia and suicide symptoms in adolescents. *Journal of Nutrition*, 132, 719–725.
- Arenz, S., Rückerl, R., Koletzko, B., & von Kries, R. (2004). Breast-feeding and childhood obesity--a systematic review. *International Journal of Obesity and Related Metabolic Disorders*, 28, 1247–56.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71–81). New York, NY: Academic Press. (Reprinted in H. Friedman [Ed.], *Encyclopedia of mental health*. San Diego: Academic Press, 1998).
- Bandura, A. (1997). The anatomy of stages of change. *American Journal of Health Promotion*, 12, 8–10.
- Basiotis, P., & Lino, M. (2003). Food insufficiency and prevalence of overweight among adult women. *Family Economics and Nutrition Review*, 15, 55–57.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 55, 83–96.
- Bhattacharya, J., Currie, J., & Haider, S. (2004). Poverty, Food Insecurity, and Nutritional Outcomes in Children and Adults. *Journal of Health Economics*, 23, 839–862.
- Bickel, G., Nord, M., Price, C., Hamilton, W., & Cook, J. (2000). Guide to measuring household food security, revised 2000. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service

- Birch, L., & Davison, K. (2001). Family environmental factors influencing the developing behavioral controls of food intake and childhood overweight. *Pediatric Clinics of North America*, 48, 893-907.
- Birch, L., & Fisher, J. (1998). Development of eating behaviors among children and adolescents. *Pediatrics*, 101, 539-49.
- Bornstein, M., Hahn, C. & Haynes, M. (2011). Maternal Personality, Parenting Cognitions, and Parenting Practices. *Developmental Psychology*, 47, 658–675
- Brewis, A, & Gartin, M. (2006). Biocultural constructions of obesogenic ecologies of childhood: Parental feeding versus young child eating strategies. *American Journal of Human Biology*, 18, 203-213.
- Bronte-Tinkew, J., Zaslow, M., Capps, R., Horowitz, A., & McNamara, M. (2007). Food insecurity works through depression, parenting, and infant feeding to influence overweight and health in toddlers. *Journal of Nutrition*, 137, 2160-2165.
- Bugental, D., & Cortez, V. (1988). Physiological reactivity to responsive and unresponsive children as moderated by perceived control. *Child Development*, 59, 686-693.
- Bugental, D. B., & Happaney, K. (2004). Predicting infant maltreatment in low-income families: the interactive effects of maternal attributions and child status at birth. *Developmental Psychology*, 40, 234-243.
- Bugental, D. B., Blue, J., & Cruzcosa, M. (1989). Perceived control over caregiving outcome: Implications for child abuse. *Developmental Psychology*, 25, 532–539
- Campbell, C. C. (1991). Food insecurity: a nutritional outcome or a predictor variable? *Journal of Nutrition*, 121, 408-415.
- Campbell, C., & Desjardins, E. (1989). A model and research approach for studying the management of limited food resources by low income families. *Journal of Nutrition Education*, 21, 62-71.
- Campbell, K., Hesketh, K., Silverii, A., & Abbott, G. (2010). Maternal self-efficacy regarding children's eating and sedentary behaviours in the early years: associations with children's food intake and sedentary behaviours. *International Journal of Pediatric Obesity*, 5, 501-508.

- Carlson, S. J., Andrews, M. S., & Bickel, G. W. (1999). Measuring food insecurity and hunger in the United States: development of a national benchmark measure and prevalence estimates. *Journal of Nutrition*, 129, 510S-516S.
- Cole, P., Barrett, K., & Zahn-Waxler, C. (1992). Emotion displays in two-year-olds during mishaps. *Child Development*, 63, 314-24
- Coleman, P. K., & Karraker, K. H. (1997). Self-efficacy and parenting quality: Findings and future applications. *Developmental Review*, 18, 47-85.
- Conners, N., Tripathi, S., Clubb, R., & Bradley, R. (2006). Maternal characteristics associated with television viewing habits of low income preschool children. *Journal of Child and Family Studies*, 16, 415-425.
- Cooke, L., Wardle, J., Gibson, E., et al. (2004). Demographic, familial and trait predictors of fruit and vegetable consumption by pre-school children. *Public Health Nutrition*, 7, 295-302.
- Crockett, S., & Sims, L. (1995). Environmental influences on children's eating. *Journal of Nutrition Education*, 27, 235-245.
- Cullen, K., Baranowski, T., Rittenberry, L., Cosart, C., Owens, E., Hebert, D., & de Moor, C. (2000). Socioenvironmental influences on children's fruit, juice and vegetable consumption as reported by parents: reliability and validity of measures. *Public Health Nutrition*, 3, 345-356.
- Cutrona, C. E., & Troutman, B. R. (1986). Social support, infant stress, and parenting self-efficacy: -A mediational model of postpartum depression. *Child Development*, 57, 1507-1518.
- Darling, N., & Steinberg, L. (1993). Parenting style as context: An integrative model. *Psychological Bulletin*, 113, 487-496.
- Dave, J., Evans, A., Pfeiffer, K., Watkins, K. & Saunders, R. (2010). Correlates of availability and accessibility of fruits and vegetables in homes of low-income Hispanic families. *Health Education Research*, 25, 97-108.
- Dietz, W. (1995). Does hunger cause obesity? *Pediatrics*, 95, 766-767.
- Dixon, B., Winkleby, M., & Radimaer, K. (2001). Dietary Intakes and Serum Nutrients Differ between Adults from Food-Insufficient and Food-Sufficient Families: Third National Health and Nutrition Examination Survey, 1988-1994. *Journal of Nutrition*, 131, 1232-46

- Drewnowski, A., & Specter, S. (2004). Poverty and obesity: the role of energy density and energy costs. *American Journal of Clinical Nutrition*, 79, 6–16.
- Fisher, J., Mitchell, D., Smickilas-Wright, H., & Birch, L. (2002). Parental influences on young girls' fruit and vegetable, macronutrient, and fat intakes. *Journal of the American Dietetic Association*, 102, 58–64.
- Frongillo, E. (2003). Understanding Obesity and Program Participation in the Context of Poverty and Food Insecurity. *Journal of Nutrition*, 133.
- Frongillo, Jr. (1999). Validation of measures of food insecurity and hunger. *Journal of Nutrition*, 129, S506-S509.
- Frongillo, E., Rauschenback, B., Olson, C., Kendall, A., & Colmenares A. (1997). Questionnaire-based measures are valid for the identification of rural households with hunger and food insecurity. *Journal of Nutrition*, 127, 699-705.
- Gibson, E., Wardle, J., & Watts, C. (1998). Fruit and vegetable consumption, nutritional knowledge and beliefs in mothers and children. *Appetite*, 31, 205–28.
- Goodnow, J., & Collins, W. (1990). Development according to parents: The nature, sources, and consequences of parents' ideas. Hillsdale, NJ: Lawrence Erlbaum Associates, Publishers.
- Gross, S. M., Pollock, E. D., & Braun, B. (2010). Family influence: key to fruit and vegetable consumption among fourth- and fifth-grade students. *Journal of Nutrition Education Behavior*, 42, 235-241.
- Hadley, C., & Patil, C. L. (2006). Food insecurity in rural Tanzania is associated with maternal anxiety and depression. *American Journal of Human Biology*, 18, 359-368.
- Hamelin, A. M., Beaudry, M., & Habicht, J. P. (2002). Characterization of household food insecurity in Quebec: food and feelings. *Social Science & Medicine*, 54, 119-132.
- Hamelin, A. M., Habicht, J. P., & Beaudry, M. (1999). Food insecurity: consequences for the household and broader social implications. *Journal of Nutrition*, 129, 525S-528S.
- Hamilton, W. L., Cook, J. T., Thompson, W. W., Buron, L. F., Frongillo, E. A., Jr., Olson, C. M. & Wehler, C. A. (1997). Household Food Security in the United States in 1995: Summary Report of the Food Security Measurement Project.

Report prepared for the USDA Food and Consumer Service, Alexandria, VA.

- Harder, T., Bergmann, R., Kallischnigg, G., & Plagemann, A. (2005). Duration of Breastfeeding and Risk of Overweight: A Meta-Analysis. *American Journal of Epidemiology*, 162, 397-403.
- Harper L., Sanders K.M. (1975). The effect of adults' eating on young children's acceptance of unfamiliar foods. *Journal of Experimental Child Psychology*, 20, 206-214.
- Harrison, G., Stormer, A., Herman, D., Winham, D. (2003). Development of a spanish-language version of the U.S. household food security survey module. *Journal of Nutrition*, 133, 1192-7.
- Heflin, C., Siefert, K. & Williams, D. (2005). Food Insufficiency and Women's Mental Health: Findings From a 3-year Panel of Welfare Recipients. *Social Science and Medicine*, 61, 1971-1982.
- Huang, J., Oshima, K. M., & Kim, Y. (2010). Does food insecurity affect parental characteristics and child behavior? Testing mediation effects. *The Social Service Review*, 84, 381-401.
- Huh, S., Rifas-Shiman, S., Taveras, E., Oken, E., & Gillman, M. (2011). Timing of solid food introduction and risk of obesity in preschool-aged children. *Pediatrics*, 127, 544-551.
- Jones, C., Burns, S., Howat, P., Jancey, J., McManus, A., & Carter, O. (2010). Playgroups as a setting for nutrition and physical activity interventions for mothers with young children: exploratory qualitative findings. *Health Promotion Journal of Australia*, 21, 92-98.
- Jones, T., & Prinz, R. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25, 341-363.
- Jyoti, D., Frongillo, E., & Jones, S. (2005). Food Insecurity Affects School Children's Academic Performance, Weight Gain, and Social Skills. *Journal of Nutrition*, 135, 2831-2839.
- Kaiser, L., et al. (2002). Food security and nutritional outcomes of preschool-age Mexican-American children. *Journal of the American Dietetic Association*, 102, 924-929.

- Kaiser, L., Melgar-Quiñonez, H., Townsend, M., et al. (2003). Food insecurity and food supplies in Latino households with young children. *Journal of Nutrition Education and Behavior*, 35, 148–53.
- Kaiser, L. & Townsend, M. (2005). Food Insecurity among US Children: Implications for nutrition and Health. *Topics in Clinical Nutrition*, 20, 313-320.
- Kendall, A., Olson, C., & Frongillo, E. (1996). Relationship of hunger and food insecurity to food availability and consumption. *Journal of the American Dietetic Association*, 96, 1019-1924.
- Kirkpatrick, S., & Tarasuk, V. (2008). Food insecurity is associated with nutrient inadequacies among Canadian adults and adolescents. *Journal of Nutrition*, 138, 604– 612.
- Kochanska, G. (1997). Multiple pathways to conscience for children with different temperaments: from toddlerhood to age 5. *Developmental Psychology*, 33,228–40.
- Krebs-Smith, S., Cook, A., Subar, A., et al. (1996). Fruit and vegetable intakes of children and adolescents in the United States. *Archives of Pediatric and Adolescent Medicine*, 150,6.
- Kristjansdottir, A. G., De Bourdeaudhuij, I., Klepp, K. I., & Thorsdottir, I. (2009). Children's and parents' perceptions of the determinants of children's fruit and vegetable intake in a low-intake population. *Public Health Nutrition*, 12, 1224-1233.
- Lamborn, S.D., Mounts, N.S., Steinberg, L. & Dornbusch, S.M. (1991). Patterns of competence and adjustment of adolescents from authoritative, authoritarian, indulgent, and neglectful homes. *Child Development*, 62, 1049-1065.
- Lehrer, E., Crittenden, K., & Norr, K. (2002). Depression and economic self-sufficiency among inner-city minority mothers. *Social Science Research*, 31, 285–309.
- Matheson, D., Varady, J., Varady, A. et al. (2002). Household food security and nutritional status of Hispanic children in the fifth grade. *American Journal Clinical Nutrition*, 76, 210–7.
- McIntyre, L., Glanville, T., Raine, K., Dayle, J., Anderson, B., & Battaglia, N. (2003). Do Low-Income Lone Mothers Compromise their Nutrition to Feed their Children? *Canadian Medical Association Journal*, 168, 686-691.

- McCurdy, K., Gorman, K. S. and Metallinos-Katsaras, E. (2010). From poverty to food insecurity and child overweight: a family stress approach. *Child Development Perspectives*, 4, 144–151.
- Montigny, F., & Lacharite, C. (2005). Perceived parental efficacy: concept analysis. *Journal of Advanced Nursing*, 49, 387-396.
- Morawska, A., Winter, L., & Sanders, M. R. (2009). Parenting knowledge and its role in the prediction of dysfunctional parenting and disruptive child behaviour. *Child Care Health Development*, 35, 217-226.
- Muñoz, K., Krebs-Smith, S., Ballard-Barbash, R., & Cleveland, L. (1997). Food intakes of U.S. children and adolescents compared with recommendations. *Pediatrics*, 100, 9.
- Mushi-Brunt, C., Haire-Joshu, D., & Elliott, M. (2007). Food spending behaviors and perceptions are associated with fruit and vegetable intake among parents and their preadolescent children. *Journal of Nutrition Education and Behavior*, 39, 26-30.
- National Research Council. (2006). Food Insecurity and Hunger in the United States: An Assessment of the Measure, Chapter I, pp 13. Available at: <http://www.nap.edu/catalog/11578.html>. Accessed on 8/9/2011
- Nelson, M. (2000). Childhood nutrition and poverty. *The Proceedings of the Nutrition Society*, 59, 307–315.
- Nord, M., & Hopwood, H. (2007). Recent advances provide improved tools for measuring children's food security. *Journal of Nutrition*, 137, 533-536.
- Nord, M., Coleman-Jensen, A., Andrews, M., & Carlson, S. Household Food Security in the United States, 2009. ERR-108, U.S. Dept. of Agriculture, Economic Research Service. November 2010.
- O'Connor, T. M., Hughes, S. O., Watson, K. B., Baranowski, T., Nicklas, T. A., Fisher, J. O., . . . Shewchuk, R. M. (2010a). Parenting practices are associated with fruit and vegetable consumption in pre-school children. *Public Health Nutrition*, 13, 91-101.
- O'Connor, T., Watson, K., Hughes, S., Beltran, A., Hingle, M., Baranowski, J., . . . Baranowski, T. (2010b). Health professionals' and dietetics practitioners' perceived effectiveness of fruit and vegetable parenting practices across six countries. *Journal of the American Dietetic Association*, 110, 1065-1071.

- O'Connor, T. M., Hughes, S. O., Watson, K. B., Baranowski, T., Nicklas, T. A., Fisher, J. O., . . . Shewchuk, R. M. (2010a). Parenting practices are associated with fruit and vegetable consumption in pre-school children. *Public Health Nutrition*, 13, 91-101.
- Ogden, C., Carroll, M. (2010). Prevalence of Obesity Among Children and Adolescents: United States, Trends 1963-1965 Through 2007-2008. Retrieved on January 2011 from <http://www.cdc.gov/obesity/childhood/trends>.
- Olson, C. M. (1999). Nutrition and health outcomes associated with food insecurity. *Journal of Nutrition*, 129, 521S-524S.
- Olson, C. M., Bove, C. F., & Miller, E. O. (2007). Growing up poor: long-term implications for eating patterns and body weight. *Appetite*, 49, 198-207.
- Owen, C. G., Martin, R. M., Whincup, P. H., Smith, G. D., & Cook, D. G. (2005). Effect of infant feeding on the risk of obesity across the life course: A quantitative review of published evidence. *Pediatrics*, 115, 1367-1377.
- Paulson, J.F., Dauber, S., Leiferman, J.A. (2006). Individual and Combined Effects of Postpartum Depression in Mothers and Fathers on Parenting Behavior. *Pediatrics*, 118,659-668.
- Pearson, N., Biddle, S. J., & Gorely, T. (2009). Family correlates of fruit and vegetable consumption in children and adolescents: a systematic review. *Public Health Nutrition*, 12, 267-283.
- Pettit, G.S., & Bates, J.E. (1989). Family interaction patterns and children's behavior problems from infancy to 4 years. *Development and Psychopathology*, 25, 413-420
- Polivy, J. (1996). Psychological consequences of food restriction. *Journal of the American Dietetic Association*, 96,589-592.
- Provencher, V., Drapeau, V., Tremblay, A., Despres, J., & Lemieux, S. (2003). Eating behaviors and indexes of body composition in men and women from the Quebec family study. *Obesity Research*, 11, 783-792.
- Radimer, K. L., Olson, C. M., Greene, J. C., Campbell, C. C. & Habicht, J.P.(1992). Understanding hunger and developing indicators to assess it in women and children. *Journal of Nutrition Education*, 24, 36S- 44S.

- Rao, G. (2008). Childhood obesity: Highlights of AMA Expert Committee recommendations. *American Family Physician*, 78, 56–63.
- Rose, D. (1999). Economic determinants and dietary consequences of food insecurity in the United States. *Journal of Nutrition*, 129, 517S–520S.
- Rose D., & Oliveira V. (1997). Nutrient intakes of individuals from food-insufficient household in the United States. *American Journal of Public Health*, 87, 1956-196
- Rosenkranz, R. R., & Dzewaltowski, D. A. (2008). Model of the home food environment pertaining to childhood obesity. *Nutrition Reviews*, 66, 123-140.
- Sanders, M. R., & Woolley, M. L. (2005). The relationship between maternal self-efficacy and parenting practices: implications for parent training. *Child Care Health Development*, 31, 65-73.
- Skalicky, A., Meyers, A., Adams, W., Yang, Z., Cook, J., & Frank, D. (2006). Child food insecurity and iron deficiency anemia in low-income infants and toddlers in the United States. *Maternal and Child Health Journal*, 10, 177-185.
- Smith, C., & Richards, R. (2008). Dietary intake, overweight status, and perceptions of food insecurity among homeless Minnesotan youth. *American Journal of Human Biology*, 20, 550-563.
- Stifter, C. A., & Bono, M. A. (1998). The effect of infant colic on maternal self-perceptions and mother-infant attachment. *Child Care Health Development*, 24, 339-351.
- Stuff, J., Casey, P., Szeto, K., Gossett, J., Robbins, J., Simpson, P., Connell, C., & Bogle, M. (2004). Household Food Insecurity is Associated with Adult Health Status. *Journal of Nutrition*, 134, 2330–5.
- Tarasuk, V. (2001). A critical examination of community-based responses to food insecurity in Canada. *Health Education & Behavior*, 28, 487-499.
- Tarasuk, V. S. & Beaton, G. H. (1999). Women's dietary intakes in the context of household food insecurity. *Journal of Nutrition*, 129, 672-679.
- Teti, D. and Candelaria, M. A. (2002). Parental competence. In M. Bornstein (Eds.), *Handbook of parenting*. Baltimore, MD: Paul H. Brooks Publishing Co.

- Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: The mediational role of maternal self-efficacy. *Child Development*, 62, 918–929.
- Teti, D. M., Hess, C. R., & O'Connell, M. (2005). Parental perceptions of infant vulnerability in a preterm sample: prediction from maternal adaptation to parenthood during the neonatal period. *Journal of Developmental and Behavioral Pediatrics*, 26, 283-292.
- Toronto Public Health. Toronto: Toronto Public Health; 2006. Food security: Implications for the early years – background paper.
- Townsend, M., Peerson, J., Love, B., Achterberg, C., & Murphy, S. (2001). Food insecurity is positively related to overweight in women. *Journal of Nutrition*, 131, 1738–1745.
- U.S. Department of Agriculture. (1995). Food security measurement and research conference: Papers and proceedings. Alexandria, VA: U.S. Department of Agriculture, Food and Consumer Service, Office of Analysis and Evaluation.
- U.S. Department of Health and Human Services. 2007 Poverty Guidelines. Federal Register: Volume 72, Number 15. Page 3147-3148. Retrieved on January, 2011 from <http://aspe.hhs.gov/poverty/07poverty>
- Vereecken, C., Haerens, L., De Bourdeaudhuij, I., & Maes, L. (2010). The relationship between children's home food environment and dietary patterns in childhood and adolescence. *Public Health Nutrition*, 13, 1729-1735.
- Vozoris, N. & Tarasuk, V. (2003). Household food insufficiency is associated with poorer health. *Journal of Nutrition*, 133, 120–126.
- Wachs, T. (2008). Multiple influences on children's nutritional deficiencies: A systems perspective. *Physiology & Behavior*, 94, 48–60.
- Wansink, B.(2006). Nutritional gatekeepers and the 72% solution. *Journal of the American Dietetic Association*, 106, 1324-1326.

APPENDIX A:
IRB APPROVAL



Office of Research
6700 Fannin Street
Houston, TX 77030-2343
713-794-2480 Fax 713-794-2488

February 21, 2011

Ms. Angela Hilmer
Nutrition and Food Science - C. Moore Faculty Advisor
6700 Fannin Street
Houston, TX 77030

Dear Ms. Hilmer:

Re: *"Exploring the relationship between household food insecurity, parental self-efficacy, and fruit and vegetable parenting practices among parents of 5-8 year old overweight children"*
(Protocol #: 16460)

The above referenced study has been reviewed by the TWU Institutional Review Board (IRB) and was determined to be exempt from further review.

Any modifications to this study must be submitted for review to the IRB using the Modification Request Form. Additionally, the IRB must be notified immediately of any unanticipated incidents. If you have any questions, please contact the TWU IRB.

Sincerely,

Carolyn Kelley, PT, DSc, NCS
Institutional Review Board - Houston

Think SUCCESS Think TWU

Appendix B
Questionnaires

Family Demographics

Please complete this form to the best of your knowledge. These questions are about you and your child.

A. GENERAL INFORMATION ABOUT PARENTS

Please provide the following information about yourself:

1. Date of birth:

Month
Day
Year

2. Were you born in the United States?

Yes
☐ 1

No
☐ 2

a. If No, please write in the country
where you were born:

3. Are you:

Male Female
☐ 1 ☐ 2

4. Do you consider yourself to be Hispanic, Latino, or Mexican American?

Yes No
☐ 1 ☐ 2

5. To which of the following races do you consider yourself to belong? *(Please check all that apply.)*

- ☐ 1 Black or African-American
☐ 2 White
☐ 3 American Indian or Alaska Native

- ☐ 4 Native Hawaiian or Pacific Islander
☐ 5 Asian
☐ 6 Other *(please specify)*:

6. What is your relationship to the child who is taking part in the “Helping HAND Program”?

☐1

Mother

☐6

Father

☐2

Step Mother

☐7

Step Father

☐3

Adopted Mother

☐8

Adopted Father

☐4

Foster Mother

☐9

Foster Father

☐5

Other female relative, such
as Grandmother, Aunt or
Great Aunt

☐10

Other male relative, such as
Grandfather, Uncle or Great Uncle

7. What is the highest education level you have finished?

(Please check one answer)

☐1

6th grade or less

☐5

Technical School

☐2

8th grade or less

☐6

Some College

☐3

Attended some High School

☐7

College Graduate

☐4

High School Graduate or GED

☐8

Post Graduate Study

8. Are you currently employed?

Yes

☐1

No

☐2

9. Do you work:

☐

Not currently employed

☐

Part time (less than 40 hours/week)

☐

Full time (40 hours/week)

☐

More than full time (more than 40 hours/week)

B. GENERAL INFORMATION ABOUT YOUR CHILD TAKING PART IN THE HELPING HAND PROGRAM

Please provide the following information about your child who is taking part in the "Helping HAND Program":

1. Date of birth:

Month	

Day	

Year			

2. Was he/she born in the United States?

Yes	1
-----	---

No	2
----	---

a. If No, please write in the country where he/she was born:

3. Is your child:

Male	1
------	---

Female	2
--------	---

4. Do you consider your child to be Hispanic, Latino, or Mexican American?

Yes	1
-----	---

No	2
----	---

5. To which of the following races do you consider your child to belong? *(Please check all that apply.)*

☐

1 Black or African-American

☐

2 White

☐

3 American Indian or Alaska Native

☐

4 Native Hawaiian or Pacific Islander

☐

5 Asian

☐

6 Other *(please specify)*:

6. Have you been told by a doctor that your child taking part in the "Helping HAND Program" has:

a. High blood pressure?

Yes

☐

1

No

☐

2

b. High cholesterol?

☐

1

☐

2

c. Insulin resistance?

☐

1

☐

2

d. Diabetes?

<input type="checkbox"/>	1	<input type="checkbox"/>	2
--------------------------	---	--------------------------	---

7. Does your child taking part in the "Helping HAND Program" have medical problems that limit his or her participation in normal school or physical activities (such as mental retardation, cerebral palsy, degenerative neurological disorders, or severe heart or lung diseases that limit their activity)?

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>
1	2

If yes, what has he or she been diagnosed with?

C. HOUSEHOLD MEMBERSHIP

Please provide the following information about the members of your household.

1. How many adults (19 years or older), including yourself, live in your household? (Please check one answer)

<input type="checkbox"/>	1	<input type="checkbox"/>	4
<input type="checkbox"/>	2	<input type="checkbox"/>	5
<input type="checkbox"/>	3	<input type="checkbox"/>	More than 5

2. How many children (18 years or younger), including the child participating in the "Helping HAND Program", live in your household? (Please check one answer)

<input type="checkbox"/>	1	<input type="checkbox"/>	4
<input type="checkbox"/>	2	<input type="checkbox"/>	5
<input type="checkbox"/>	3	<input type="checkbox"/>	More than 5

3. What is the highest level of education completed in your household?

<input type="checkbox"/>	1	6 th grade or less	<input type="checkbox"/>	5	Technical School
<input type="checkbox"/>	2	8 th grade or less	<input type="checkbox"/>	6	Some College

☐ ₃ Attended some High School

☐ ₄ High School Graduate or GED

☐ ₇ College Graduate

☐ ₈ Post Graduate Study

4. What was the approximate total income, before taxes, of your household in 2007?
Please include wages, salaries, social security, interest, child support, public assistance,
unemployment compensation, rent from property and all other income. *(Please check
one answer)*

☐ ₁ Less than \$5,000

☐ ₂ \$5,000 - \$9,999

☐ ₃ \$10,000 - \$19,999

☐ ₄ \$20,000 - \$29,999

☐ ₅ \$30,000 - \$39,999

☐ ₆ \$40,000 - \$49,999

☐ ₇ \$50,000 - \$59,999

☐ ₈ \$60,000 - \$69,999

☐ ₉ Over \$70,000

5. How many TV's do you have in your household?

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4 or more

6. Does your child participating in "Helping HAND Program" have a TV in their bedroom?

Yes
☐ ₁

No
☐ ₂

7. How many computers do you have in your household?

☐ 0

☐ 1

☐ 2

☐ 3

☐ 4 or more

8. Do you have internet access in your household?

☐ N/A

☐ Yes

☐ No

Thank you.

Información demográfica de la familia

Por favor llene este formulario lo mejor que pueda. Estas preguntas se tratan de usted y de su hijo(a).

A. INFORMACIÓN GENERAL SOBRE LOS PADRES

Por favor provea la siguiente información sobre usted:

1. Fecha de Nacimiento:

Mes

Día

Año

2. ¿Nació usted los Estados Unidos?

Si

No

a. Si "No", por favor escriba el país donde

3. ¿Es usted:

hombre

mujer

4. ¿Se considera usted hispano, latino, o mejicano americano?

sí

no

5. ¿A cuál de las siguientes razas usted considera que pertenece? (Por favor marque todas las que aplican.)

☐

1 Negro o Africano-Americano

☐

4 Nativo de Hawai o de las islas del Pacífico

☐

2 Blanco

☐

5 Asiático

☐

3 Indio-Americano o Nativo de Alaska

☐

6 Otro (por favor especifique):

6. ¿Cuál es su relación con el niño(a) que está tomando parte en el programa "Echando una mano"?

☐

1 Madre

☐

6 Padre

☐

2 Madrastra

☐

7 Padrastro

☐

3 Madre adoptiva

☐

8 Padre adoptivo

☐ 4 Madre adoptiva (no legalmente – *foster mom*)

☐ 9 Padre adoptivo (no legalmente – *foster dad*)

☐ 5 Otra pariente mujer, como una abuela, tía, o tía abuela

☐ 10 Otro pariente hombre, como un abuelo, tío, o tío abuelo

7. ¿Cuál es el nivel más alto de educación que usted ha completado?
(Por favor marque solamente una respuesta)

☐ 1 6° grado o menos

☐ 5 Escuela técnica

☐ 2 8° grado o menos

☐ 6 Un poco de universidad

☐ 3 Un poco de la prepa/ escuela superior/ high school

☐ 7 Graduado de universidad

☐ 4 Graduado de la prepa/ escuela superior/ high school o GED

☐ 8 Estudios de posgraduados

8. ¿Tiene usted empleo actualmente?

☐ ^{sí} 1 ☐ ^{no} 2

9. ¿Usted trabaja?

☐ No estoy empleado actualmente

☐ Tiempo parcial (menos de 40 horas/semana)

☐ Tiempo completo (40 horas/semana)

☐ Mas que tiempo completo (mas de 40 horas/semana)

B. INFORMACIÓN GENERAL SOBRE SU HIJO(A) QUE HACE PARTE DEL PROGRAMA "ECHANDO UNA MANO"

Por favor provea la siguiente información acerca de su hijo (a) que hace parte del programa "Echando una mano":

1. Fecha de Nacimiento:

Mes

Día

Año

2. ¿Nació él o ella en los Estados Unidos?

Si
☐ 1

No
☐ 2

a. Si "No", por favor escriba el país donde el o ella nació:

3. Es tu niño:

Hombre
☐ 1

Mujer
☐ 2

4. ¿Considera a su hijo (a) hispano, latino, o mejicano americano?

sí
☐ 1

no
☐ 2

5. ¿A cuál de las siguientes razas usted considera que su hijo (a) pertenece? (Por favor marque todas las que aplican.)

☐ 1

Negro o Africano-Americano

☐ 2

Blanco

☐ 3

Indio-Americano o Nativo de Alaska

☐ 4

Nativo de Hawai o de las islas del Pacífico

☐ 5

Asiático

☐ 6

Otro (por favor especifique):

6. El doctor le ha dicho alguna vez que su niño que esta tomando parte en programa "Echando una mano tiene:

Si

No

a. ¿Presión alta?

☐ 1

☐ 2

b. ¿Colesterol alto?

☐ 1

☐ 2

c. ¿Resistencia a la insulina?

☐ 1

☐ 2

d. ¿Diabetes?

☐

1

☐

2

7. ¿Tiene su hijo (a) que hace parte del programa “Echando una mano” algún problema médico que limite su participación en actividades normales escolares o en actividades físicas (por ejemplo, retraso mental, parálisis cerebral, enfermedades neurológicas degenerativas, o enfermedades severas del corazón o del pulmón que limitan su actividad física)?

sí

☐

1

no

☐

2

Si “sí”, ¿con qué ha sido diagnosticado? _____

C. LA COMPOSICIÓN DEL HOGAR

Por favor provea la siguiente información sobre las personas que viven en su hogar

1. ¿Cuántos adultos (de 19 años de edad o más), incluyéndose a usted, viven en su hogar?

(Por favor marque solamente una respuesta)

☐

1

☐

4

☐

2

☐

5

☐

3

☐

Más de 5

2. ¿Cuántos niños de 18 años de edad o menos (incluyendo el niño que toma parte del Programa “Echando una mano”) viven en su hogar? *(Por favor solamente marque una respuesta)*

☐

1

☐

4

☐

2

☐

5

☐

3

☐

Más de 5

3. ¿Cuál es el nivel de educación mas alto completado en su hogar?

- | | |
|---|---|
| <input type="checkbox"/> 1 6° grado o menos | <input type="checkbox"/> 5 Escuela técnica |
| <input type="checkbox"/> 2 8° grado o menos | <input type="checkbox"/> 6 Un poco de universidad |
| <input type="checkbox"/> 3 Un poco de la prepa/ escuela superior/
high school | <input type="checkbox"/> 7 Graduado de universidad |
| <input type="checkbox"/> 4 Graduado de la prepa/ escuela superior/
high school o GED | <input type="checkbox"/> 8 Estudios de posgraduados |

4. ¿Cuál fue aproximadamente el ingreso total de su hogar en el 2007 antes de aplicar las deducciones por impuestos? Por favor incluya jornales, sueldos/salarios, seguro social, intereses, pensión para hijos menores, asistencia pública, compensación por desempleo, alquiler de una propiedad y cualquier otro ingreso. (Por favor marque solamente una respuesta)

- | | |
|--|--|
| <input type="checkbox"/> 1 Menos de \$5,000 | <input type="checkbox"/> 6 \$40,000 - \$49,999 |
| <input type="checkbox"/> 2 \$5,000 - \$9,999 | <input type="checkbox"/> 7 \$50,000 - \$59,999 |
| <input type="checkbox"/> 3 \$10,000 - \$19,999 | <input type="checkbox"/> 8 \$60,000 - \$69,999 |
| <input type="checkbox"/> 4 \$20,000 - \$29,999 | <input type="checkbox"/> 9 Mas de \$70,000 |
| <input type="checkbox"/> 5 \$30,000 - \$39,999 | |

5. ¿Cuántos aparatos de televisión tiene usted en su hogar?

- | | |
|----------------------------|----------------------------------|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 3 |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 4 o más |
| <input type="checkbox"/> 2 | |

6. ¿Tiene su niño que esta participando en el Programa “Echando una mano” una TV en su habitación?

Si	No
<input type="checkbox"/> 1	<input type="checkbox"/> 2

7. ¿Cuántas computadoras tiene usted en su hogar?

☐ 0☐ 1☐ 2☐ 3☐ 4 o más

8. ¿Tiene usted acceso a la Internet en su hogar?

☐ N/A☐ Sí☐ No

¡Gracias!

Please read each statement carefully. **SELECT** the answers that describe how often you do the following. There is no right or wrong answer.

How often do you...	Never	Rarely	Some- times	Most of the Time	Always
1. Place fruit and vegetables where your child can easily reach them.	1	2	3	4	5
2. Encourage your child to try a couple of bites of the fruit or vegetable.	1	2	3	4	5
3. Never allow your child to drink sweet drinks.	1	2	3	4	5
4. Tell your child they will get a stomach- ache if they eat too many cookies, chips or candy.	1	2	3	4	5
5. Make eating fruit and vegetables fun, like cutting into shapes.	1	2	3	4	5
6. Ask your child to select fruit and vegetables at the grocery store.	1	2	3	4	5
7. Routinely schedule meals for your child.	1	2	3	4	5
8. Beg your child to eat fruit and vegetables.	1	2	3	4	5
9. Tell your child to eat fruit or vegetables, but not eat any yourself.	1	2	3	4	5
10. Make fruit and vegetables easy to eat, such as cutting, cleaning, or peeling them.	1	2	3	4	5

TCPA Helping HAND Pilot Study
 Parent ID: _____
 Child ID: _____

Date: _____

TCPA-HH-FV-PP

11.	Tell your child eating fruit or vegetables will make them strong and healthy.	1	2	3	4	5
12.	Offer fruit or vegetables without forcing your child to eat them.	1	2	3	4	5
13.	Tell your child that their favorite cartoon characters eat fruit and vegetables.	1	2	3	4	5
14.	Tell your child how much effort it took to make the fruit or vegetable dish.	1	2	3	4	5
15.	Ask others not to regularly give your child cookies, chips or candy.	1	2	3	4	5
16.	Serve several fruit or vegetables and let your child decide which they would eat.	1	2	3	4	5
17.	Reward your child with sweets if they eat their fruit and vegetables.	1	2	3	4	5
18.	Praise your child when you see them eat fruit or vegetables.	1	2	3	4	5
19.	Ask your child to help with fruit or vegetable preparation.	1	2	3	4	5
20.	Promise your child something other than food if they finish their fruit and vegetables.	1	2	3	4	5
21.	Buy fruit and vegetables instead of cookies, chips, and candy.	1	2	3	4	5
22.	Keep your child from having sweets if they don't finish their vegetables.	1	2	3	4	5

TCPA Helping HAND Pilot Study
 Parent ID: _____
 Child ID: _____

Date: _____

TCPA-HH-FV-PP

23.	Include some form of fruit and vegetables in most meals.	1	2	3	4	5
24.	Physically struggle with your child to get them to eat fruit or vegetables.	1	2	3	4	5
25.	Yell at your child for not eating their fruit or vegetables.	1	2	3	4	5
26.	Ask your child to choose the fruit and vegetables for meals and snacks.	1	2	3	4	5
27.	Allow your child to serve themselves fruit or vegetables.	1	2	3	4	5
28.	Limit cookies, chips and candy in your house.	1	2	3	4	5
29.	Cut back on how often your child eats at fast food places.	1	2	3	4	5
30.	Show your child that you enjoy eating fruit and vegetables.	1	2	3	4	5
31.	Make your child feel guilty when they don't eat fruit or vegetables.	1	2	3	4	5
32.	Use fruit and vegetables for your child's snacks.	1	2	3	4	5
33.	Tell your child that fruit and vegetables taste good.	1	2	3	4	5
34.	Give your child fruit or vegetables they like.	1	2	3	4	5
35.	Eat together as a family.	1	2	3	4	5
36.	Never allow your child to eat cookies, chips or candy.	1	2	3	4	5

Parent ID: _____

Child ID: _____

37. Insist your child sit at the table until they eat their fruit or vegetables.	1	2	3	4	5
38. Mix fruit and vegetables with other foods your child likes.	1	2	3	4	5
39. Keep your child from going to play if they don't eat their fruit or vegetables.	1	2	3	4	5

TCPA Helping HAND Pilot Study
 Madre ID: _____
 Hijo(a) ID: _____

Fecha: _____

TCPA-HH-FV-PP

Por favor lea cuidadosamente cada afirmación abajo. **SELECCIONE** las respuestas que mejor describan con que frecuencia usted hace lo siguiente. No hay respuesta correcta o incorrecta.

Cuan a menudo usted...	Nunca	Rara vez	Algunas veces	Seguido	Siempre
1. Coloca las frutas y las verduras donde su niño pueda alcanzarlas fácilmente.	1	2	3	4	5
2. Anima a su niño a que le de un par de mordidas a la fruta o la verdura.	1	2	3	4	5
3. Nunca permite que su niño beba bebidas azucaradas.	1	2	3	4	5
4. Dice a su niño que tendrá dolor de estomago si él o ella come demasiadas galletas, papitas o dulces.	1	2	3	4	5
5. Hace que comer frutas y verduras sea divertido, por ejemplo cortándolas en formas variadas.	1	2	3	4	5
6. Pide a su niño que seleccione frutas y verduras en el supermercado.	1	2	3	4	5
7. Planifica de forma rutinaria los horarios de comida de su niño.	1	2	3	4	5
8. Ruega a su niño que coma frutas y verduras.	1	2	3	4	5
9. Dice a su niño que coma frutas o verduras pero no comer ninguna usted mismo.	1	2	3	4	5
10. Hace que las frutas y verduras sean fáciles para comer, como cortarlas, limpiarlas y pelarlas.	1	2	3	4	5
11. Dice a su niño que comer frutas y verduras lo hará fuerte y sano.	1	2	3	4	5
12. Ofrece fruta o verduras sin forzar a su niño a que los coma.	1	2	3	4	5

Madre ID: _____

Hijo(a) ID: _____

13. Dice a su niño que sus dibujos animados favoritos comen frutas y verduras.	1	2	3	4	5
14. Dice a su niño cuanto esfuerzo le costó preparar el plato de frutas o verduras.	1	2	3	4	5
15. Pide a los otros que no le den regularmente galletas, papitas o dulces a su niño.	1	2	3	4	5
16. Sirve varias frutas y verduras y dejar que su niño decida cuáles él o ella quiere comer.	1	2	3	4	5
17. Recompensa a su niño con comidas dulces si él o ella come todas sus frutas y verduras.	1	2	3	4	5
18. Elogia a su niño cuando usted lo vea comiendo frutas o verduras.	1	2	3	4	5
19. Pide a su niño que lo ayude en la preparación de las frutas y verduras.	1	2	3	4	5
20. Promete a su niño otra cosa que no sea comida si él o ella termina sus frutas y verduras.	1	2	3	4	5
21. Compra frutas y verduras en vez de galletas, papitas o dulces.	1	2	3	4	5
22. No permite a su niño tener comidas dulces si él o ella no termina sus verduras,	1	2	3	4	5
23. Incluye alguna forma de frutas y verduras en la mayoría de las comidas.	1	2	3	4	5
24. Lidia físicamente con su niño para conseguir que él o ella coma sus frutas o verduras.	1	2	3	4	5

TCPA Helping HAND Pilot Study
 Madre ID: _____
 Hijo(a) ID: _____

Fecha: _____

TCPA-HH-FV-PP

25. Levanta la voz a su niño si él o ella no come sus frutas o verduras.	1	2	3	4	5
26. Pide a su niño que escoja la fruta y las verduras para las comidas y “snack” (colaciones, meriendas,	1	2	3	4	5
27. Permite a su niño que se sirva él o ella misma sus frutas o verduras.	1	2	3	4	5
28. Limita las galletas, saladitos y dulces en su casa.	1	2	3	4	5
29. Reduce la frecuencia con que su niño come en lugares de comida rápida.	1	2	3	4	5
30. Muestra a su niño que usted disfruta comiendo frutas y verduras.	1	2	3	4	5
31. Hace que su niño se sienta culpable cuando él o ella no come sus frutas o verduras.	1	2	3	4	5
32. Usa frutas y verduras para la merienda de su niño.	1	2	3	4	5
33. Dice a su niño que las frutas y verduras son deliciosas.	1	2	3	4	5
34. Da a su niño la fruta o las verduras que a él o ella le gusta.	1	2	3	4	5
35. Comen juntos como una familia.	1	2	3	4	5
36. Nunca deja que su niño coma galletas, papitas ni dulces.	1	2	3	4	5
37. Insiste que su niño permanezca en la mesa hasta que coma sus frutas o verduras.	1	2	3	4	5
38. Mezcla frutas y verduras con otras comidas que a su niño le gusta.	1	2	3	4	5
39. No deja que su niño vaya a jugar si él o ella no come sus frutas o verduras.	1	2	3	4	5

TCPA Helping HAND Pilot Study
 Parent ID: _____
 Child ID: _____

Date: _____

TCPA-HH-SEFPF

Please check the box by each statement that most closely describes how sure you are that you can do the following tasks:

Item	On a <u>regular</u> schedule, <u>how sure</u> are you that you can:	Not Sure	A Little Sure	Very Sure
1.	Plan menus for the family that contain at least 1 serving of vegetables at supper.	1	2	3
2.	Plan menus for the family that contain at least 1 serving of fruit at every supper.	1	2	3
3.	Encourage your child to eat fruit.	1	2	3
4.	Serve 2 vegetables at dinner.	1	2	3
5.	Have fruit at each dinner.	1	2	3
6.	Leave out a bowl of fruit for snacks.	1	2	3
7.	Cut up vegetables and have them available in the refrigerator for your child.	1	2	3
8.	Have low-fat dip available in the refrigerator for your child to have with cut up vegetables.	1	2	3
9.	Have cut up fruit available for your child's snack.	1	2	3
10.	Encourage your child to eat low-fat food.	1	2	3

Item	On a <u>regular</u> schedule, <u>how sure</u> are you that you can:	Not Sure	A Little Sure	Very Sure
11.	Have your child help prepare fruits and vegetables.	1	2	3
12.	Serve a new vegetable once a month.	1	2	3
13.	Serve a new vegetable once a week.	1	2	3
14.	Insist that your child try at least one bite of a new vegetable.	1	2	3
15.	Insist that your child try at least one bite of a new fruit.	1	2	3
16.	Tell your child you like fruit for snacks.	1	2	3
17.	Tell your child you like vegetables for supper.	1	2	3
18.	Tell your child you like fruit for lunch.	1	2	3
19.	Tell your child you like vegetables for snacks.	1	2	3
20.	Use a grocery list for shopping trips.	1	2	3

Por favor marque en el cuadro correspondiente a la declaración que más cercanamente describa que tan segura (o) está usted de que pueda hacer las siguientes tareas:

	En un horario regular, que tan segura (o) estás de que puedas hacer lo siguiente:	No estoy segura (o)	Un poco segura (o)	Bien segura (o)
1.	Planificar los menús para la familia de manera que incluyan por lo menos una porción de verduras en cada cena.	1	2	3
2.	Planificar los menús para la familia de manera que incluyan por lo menos una porción de fruta en cada cena.	1	2	3
3.	Animar a su hijo (a) a comer frutas.	1	2	3
4.	Servir dos verduras en la cena.	1	2	3
5.	Tener una fruta en cada cena.	1	2	3
6.	Dejar afuera un tazón con frutas para las meriendas.	1	2	3
7.	Cortar las verduras y tenerlas listas en el refrigerador para su hijo (a).	1	2	3
8.	Tener disponible en el refrigerador salsa o aderezos bajos en grasa para que su hijo (a) los pueda comer con las verduras cortadas	1	2	3
9.	Tener disponible fruta cortada en trozos para la merienda de su hijo (a).	1	2	3
10.	Animar a su hijo (a) a comer alimentos bajos en grasa.	1	2	3

TCPA Helping HAND Pilot Study
 Parent ID: _____
 Child ID: _____

Date: _____

TCPA-HH-SEPFP

	En un horario regular, que tan segura (o) estás de que puedas hacer lo siguiente:	No estoy segura (o)	Un poco segura (o)	Bien segura (o)
11.	Hacer que su hijo (a) le ayude a preparar las frutas y verduras.	1	2	3
12.	Servir una verdura nueva una vez al mes.	1	2	3
13.	Servir una verdura nueva una vez a la semana.	1	2	3
14.	Insistir que su hijo (a) trate por lo menos de probar una verdura nueva.	1	2	3
15.	Insistir que su hijo (a) trate por lo menos de probar una fruta nueva.	1	2	3
16.	Decirle a su hijo (a) que a usted le gustan las frutas para meriendas.	1	2	3
17.	Decirle a su hijo (a) que a usted le gustan las verduras para la cena.	1	2	3
18.	Decirle a su hijo (a) que a usted le gustan las frutas para el almuerzo	1	2	3
19.	Decirle a su hijo (a) que a usted le gustan las verduras para merienda.	1	2	3
20.	Usar una lista de compras para sus visitas al supermercado	1	2	3

TO BE READ TO PARTICIPANT

These next questions are about the food eaten in your household in the last 12 months, since (current month) of last year and whether you were able to afford the food you need.

HH2. I'm going to read you several statements that people have made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for your household in the last 12 months—that is, since last (name of current month).

The first statement is “We worried whether our food would run out before we got money to buy more.” Was that often true, sometimes true, or never true for your household in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

HH3. “The food that we bought just didn’t last, and we didn’t have money to get more.” Was that often, sometimes, or never true for your household in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

HH4. “We couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

Screener for Stage 2 Adult-Referenced Questions:

If affirmative response (i.e., "often true" or "sometimes true") to one or more of Questions HH2-HH4, then continue to *Adult Stage 2*.

Otherwise, skip to *Child Stage 1*.

Adult Stage 2: Questions AD1-AD4 (asked of households passing the screener for Stage 2 adult-referenced questions).

AD1. In the last 12 months, since last (name of current month), did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food?

- ☐ Yes
- ☐ No (Skip AD1a)
- ☐ DK (Skip AD1a)

AD1a. [IF YES ABOVE, ASK] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

- ☐ Almost every month
- ☐ Some months but not every month
- ☐ Only 1 or 2 months
- ☐ DK

AD2. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?

- ☐ Yes
- ☐ No
- ☐ DK

AD3. In the last 12 months, were you every hungry but didn't eat because there wasn't enough money for food?

- ☐ Yes
- ☐ No
- ☐ DK

AD4. In the last 12 months, did you lose weight because there wasn't enough money for food?

☐ Yes

☐ No

☐ DK

Screeners for Stage 3 Adult-Referenced Questions:

If affirmative response to one or more of questions AD1 through AD4, then continue to **Adult Stage 3**; otherwise skip to **Child Stage 1**.

Adult Stage 3: Questions AD5-AD5a (asked of households passing screener for Stage 3 adult-referenced questions).

AD5. In the last 12 months, did you or other adults in your household ever not eat for a whole day because there wasn't enough money for food?

☐ Yes

☐ No (Skip AD5a)

☐ DK (Skip AD5a)

AD5a. [IF YES ABOVE, ASK] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

☐ Almost every month

☐ Some months but not every month

☐ Only 1 or 2 months

☐ DK

Child Stage 1: Questions CH1-CH3 (Transitions and questions CH1 and CH2 are administered to all households with children under age 18)

SELECT APPROPRIATE FILLS DEPENDING ON NUMBER OF ADULTS AND NUMBER OF CHILDREN IN THE HOUSEHOLD.

Transition into Child-Referenced Questions:

Now I'm going to read you several statements that people have made about the food situation of their children. For these statements, please tell me whether the statement was

TCPA Helping HAND Pilot Study
Parent ID: _____
Child ID: _____

Date: _____

TCPA-HH-USDA FS

OFTEN true, SOMETIMES true, or NEVER true in the last 12 months for (your child/children living in the household who are under 18 years old).

CH1. “(I/we relied on only a few kinds of low-cost food to feed (my/our) child/the children) because (I was/we were) running out of money to buy food.” Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

CH2. “(I/We) couldn’t feed (my/our) child/the children) a balanced meal, because (I/we) couldn’t afford that.” Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

CH3. “(My child was/The children were) not eating enough because (I/we) just couldn’t afford enough food.” Was that often, sometimes, or never true for (you/your household) in the last 12 months?

- ☐ Often true
- ☐ Sometimes true
- ☐ Never true
- ☐ DK or Refused

Screener for Stage 2 Child Referenced Questions:

If affirmative response (i.e., "often true" or "sometimes true") to one or more of questions CH1-CH3, then continue to ***Child Stage 2***; otherwise skip to ***End of Food Security Module***.

Child Stage 2: Questions CH4-CH7 (asked of households passing the screener for stage 2 child-referenced questions).

CH4. In the last 12 months, since (current month) of last year, did you ever cut the size

Parent ID: _____

Child ID: _____

of (your child's/any of the children's) meals because there wasn't enough money for food?

☐ Yes

☐ No

☐ DK

CH5. In the last 12 months, did (CHILD'S NAME/any of the children) ever skip meals because there wasn't enough money for food?

☐ Yes

☐ No (Skip CH5a)

☐ DK (Skip CH5a)

CH5a. [IF YES ABOVE ASK] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

☐ Almost every month

☐ Some months but not every month

☐ Only 1 or 2 months

☐ DK

CH6. In the last 12 months, (was your child/were the children) ever hungry but you just couldn't afford more food?

☐ Yes

☐ No

☐ DK

CH7. In the last 12 months, did (your child/any of the children) ever not eat for a whole day because there wasn't enough money for food?

☐ Yes

☐ No

☐ DK

END OF FOOD SECURITY MODULE

Madre ID: _____

Hijo(a) ID: _____

PARA SER LEÍDO AL PARTICIPANTE

Las próximas preguntas son sobre la comida que se consume en su hogar en los últimos 12 meses, desde (mes actual) del último año y si usted pudo proporcionar los alimentos que usted necesita.

HH2. Ahora le voy a leer algunas respuestas de la gente sobre su situación de comida. Para cada repuesta, favor de indicarme si ocurre en su casa frecuentemente, a veces, o nunca en los últimos 12 meses, es decir desde el ultimo (display current month).

La primera oración es "Me (nos) preocupó que la comida se podía acabar antes de tener dinero para comprar mas." Para (Usted. /Su casa), ¿Esto fue frecuentemente, a veces, o nunca en los últimos 12 meses?

- ☐ Frecuentemente
- ☐ A veces
- ☐ Nunca
- ☐ No sabe o no quiere contestar

HH3. La comida que compré (compramos) no duró mucho y no había dinero para comprar más. Para (Usted. /Su casa), ¿Esto fue frecuentemente, a veces, o nunca en los últimos 12 meses?

- ☐ Frecuentemente
- ☐ A veces
- ☐ Nunca
- ☐ No sabe o no quiere contestar

HH4. (Yo/Nosotros) no teníamos lo suficiente para comer una comida balanceada (nutritiva). Para (Usted. /Su casa), ¿Esto fue frecuentemente, a veces, o nunca en los últimos 12 meses?

- ☐ Frecuentemente
- ☐ A veces
- ☐ Nunca
- ☐ No sabe o no quiere contestar

Screeners for Stage 2 Adult-Referenced Questions:

If affirmative response (i.e., "often true" or "sometimes true") to one or more of Questions HH2-HH4, then continue to **Adult Stage 2**.

Otherwise, skip to **Child Stage 1**.

TCPA Helping HAND Pilot Study
Madre ID: _____
Hijo(a) ID: _____

Fecha: _____

TCPA-HH-USDA FS

Adult Stage 2: Questions AD1-AD4 (asked of households passing the screener for Stage 2 adult-referenced questions).

AD1. En los últimos 12 meses, desde el último (nombre del mes presente). ¿Usted o algún miembro de su familia comió menos o dejó de comer por que no había suficiente dinero para la comida?

- ☐ Sí (Ir a la pregunta AD1a)
- ☐ No (Pasar a la pregunta AD2)
- ☐ No sé (Pasar a la pregunta AD2)

AD1a. [IF YES ABOVE, ASK] ¿Con qué frecuencia sucedió esto—casi cada mes, algunos meses, o solo en uno o dos meses?

- ☐ Casi cada mes
- ☐ Algunos meses
- ☐ Solo en uno o dos meses
- ☐ No sé

AD2. En los últimos 12 meses, ¿Comió usted menos de lo que pensaba que debía por que no hubo suficiente dinero para comida?

- ☐ Sí
- ☐ No
- ☐ No sé

AD3. En los últimos 12 meses, ¿Alguna vez tuvo hambre pero no comió por que no tuvo suficiente dinero para comida?

- ☐ Sí
- ☐ No
- ☐ No sé

AD4. En los últimos 12 meses, ¿Perdió usted peso por que no tuvo suficiente dinero para comprar comida?

- ☐ Sí
- ☐ No
- ☐ No sé

Screener for Stage 3 Adult-Referenced Questions:

If affirmative response to one or more of questions AD1 through AD4, then continue to *Adult Stage 3*; otherwise skip to *Child Stage 1*.

Adult Stage 3: Questions AD5-AD5a (asked of households passing screener for Stage 3 adult-referenced questions).

AD5. En los últimos 12 meses, ¿Usted o algún otro adulto de su familia no comió por todo el día por que no hubo suficiente dinero para comida?

☐ Sí (Ir a la pregunta AD5a)

☐ No (Pasar a la pregunta AD6)

☐ No sé (Pasar a la pregunta AD6)

AD5a. ¿Con qué frecuencia sucedió esto—casi cada mes, algunos meses, o solo en uno o dos meses?

☐ Casi cada mes

☐ Algunos meses

☐ Solo en uno o dos meses

☐ No sé

Child Stage 1: Questions CH1-CH3 (Transitions and questions CH1 and CH2 are administered to all households with children under age 18)

SELECT APPROPRIATE FILLS DEPENDING ON NUMBER OF ADULTS AND NUMBER OF CHILDREN IN THE HOUSEHOLD.

Transition into Child-Referenced Questions:

Ahora leeré varias afirmaciones que las personas han hecho sobre la situación de comida de sus niños. Por esas afirmaciones, por favor dígame cuando eso sucedió FRECUENTEMENTE, A VECES o NUNCA en los últimos 12 meses para (su niño(s) que están viviendo en su hogar y que son menores de 18 años de edad).

CH1. Dependía (Dependíamos) de unos pocos alimentos de bajo costo para dar comida los niños porque se nos terminó el dinero disponible para comprar alimentos. Para Usted. /Su casa), ¿Esto fue frecuentemente, a veces, o nunca en los últimos 12 meses?

☐ Frecuentemente

☐ A veces

☐ Nunca

☐ No sabe o no quiere contestar

Madre ID: _____

Hijo(a) ID: _____

CH2. No tenía (teníamos) suficiente dinero para ofrecer una comida balanceada (nutritiva) a los niños. Para (Usted. /Su casa),

☐ Frecuentemente

☐ A veces

☐ Nunca

☐ No sabe o no quiere contestar

CH3. Mi (s)/nuestros hijo(s) no comía(n) lo suficiente por que no tenía (mos) dinero para comprar suficiente comida. Para (Usted. /Su casa), ¿Esto fue frecuentemente, a veces, o nunca en los últimos 12 meses?

☐ Frecuentemente

☐ A veces

☐ Nunca

☐ No sabe o no quiere contestar

Screeners for Stage 2 Child Referenced Questions:

If affirmative response (i.e., "often true" or "sometimes true") to one or more of questions CH1-CH3, then continue to ***Child Stage 2***; otherwise skip to ***End of Food Security Module***.

Child Stage 2: Questions CH4-CH7 (asked of households passing the screener for stage 2 child-referenced questions).

CH4. En los últimos 12 meses, ¿Alguna vez le dio menos cantidad de comida a su(s) hijo(s) por que no hubo suficiente dinero para comida?

☐ Sí

☐ No

☐ No sé

CH5. En los últimos 12 meses, ¿Alguna vez su hijo o cualquiera de sus hijos no comió por que no hubo suficiente dinero para comida?

☐ Sí (Ir a la pregunta CH5a)

☐ No (Pasar a la pregunta CH6)

☐ No sé (Pasar a la pregunta CH6)

Madre ID: _____

Hijo(a) ID: _____

CH5a. [IF YES ABOVE ASK] ¿Con qué frecuencia sucedió esto—casi cada mes, algunos meses, o solo en uno o dos meses?

☐ Casi cada mes

☐ Algunos meses

☐ Solo en uno o dos meses

☐ No sé

CH6. En los últimos 12 meses, ¿Alguna vez su hijo o cualquiera de sus hijos tuvo hambre pero no tuvo suficiente dinero para comprar mas comida?

☐ Sí

☐ No

☐ No sé

CH7. En los últimos 12 meses, ¿Alguna vez sus hijos no comieron por todo el día por que no hubo suficiente dinero para comida?

☐ Sí

☐ No

☐ No sé

FIN DEL MODULO