

RURAL LOW-INCOME MOTHERS' PERSPECTIVES  
ON CHILDREN'S FEEDING PRACTICES

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by  
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RURAL LOW-INCOME MOTHERS'  
PERSPECTIVE ON CHILDREN'S FEEDING PRACTICES

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## ABSTRACT

The purpose of this study was to examine the knowledge, behaviors, motivation, and barriers that rural low-income women experience in feeding their young children. Qualitative descriptive research was used to investigate the knowledge, motivations, and practices of these mothers. The sample included 18 mothers whose children were under the age of 54 months. All mothers were English speaking, over the age of 18, living at or below 185% of the federal poverty line, participating in federal food programs (Women, Infants and Children (WIC) or Food Stamps), and living in Missouri counties considered more than 50% rural. Four main categories emerged from interviews with the mothers: (1) what mothers want for their children and why; (2) challenges; (3) feeding strategies; and (4) sources of strength. A major finding was that the mothers very much wanted to do what is best for their children; they wanted to provide nutritious foods and role-model healthful eating habits in order to help their children avoid diseases such as diabetes, obesity, and cancer. Additionally, the results suggested that mothers who relied on family, friends, and government programs (e.g. WIC, Food Stamps, TANF) provided more healthful foods for their young children than those who did not. (Some of the latter group narrowly missed the qualification cut-off for the federal programs.) Like previous research, the current study indicates that, for this sample of mothers, poverty and rural living intersect to create major challenges (e.g., limited financial reserves, long distances to grocery stores) that make it difficult for them to provide the nutritious meals they desire for their children.

## CHAPTER 1

### LITERATURE REVIEW

Researchers have long examined the nutritional knowledge, behaviors, and habits of low-income mothers of young children; however, no study to date has specifically examined rural low-income mothers' knowledge, motivation, or the barriers they face in relation to the feeding of their young children. Such research is needed in order to increase understanding and more effectively design nutritional programs aimed specifically at this population.

Researchers have identified and examined factors associated with the feeding of young children. These factors include: the portions and types of food served (high or low in fat), the control that mothers have over what children eat, the restrictions they put on snacks and other foods, and the food preferences of children (Birch, McPhee, Shoba, Pirok, & Steinberg, 1987; Francis, Ventura, Marini, & Birch, 2007; Galloway, Fiorito, Francis, & Birch, 2006). However, little is known about *why* mothers feed children the way they do. There is still much to be learned about the mental processes, biases, perceptions, motivations, and barriers mothers have in feeding their children. Simply understanding a mother's knowledge is not sufficient basis for understanding why (motivation and ability) mothers do what they do and does not provide adequate information on which to base intervention programs.

There appear to be no research studies which specifically address the reasons why rural low-income mothers decide to feed their young children (other than infants) certain foods. Research has not satisfactorily described the knowledge, motivations, and

perception of barriers that rural low-income mothers bring to bear on the feeding of their children. This study qualitatively describes the feeding practices of rural low-income mothers using personal interviews aimed at extracting the ideas, explanations, and meanings of the participants.

## **Background**

Several maternal variables have been found to be important predictors of child nutrition. These include the mothers' (1) knowledge, (2) behaviors, (3) motivation/attitudes, and (4) barriers (i.e. poverty, rural living). Each of these variables and the research about them will be discussed below.

**The importance of maternal nutrition knowledge and attitudes.** The healthy growth and development of all children is influenced by both proper early nutrition and the establishment of effective eating behaviors early in life (Nahikian-Nelms, 1997). Therefore, it is imperative that nutritional resources such as: healthy foods and nutritiously balanced meals be available during childhood to avoid detrimental effects in the cognitive, physical, and social-emotional development of children in the present and long-term (Brooks-Gunn & Duncan, 1997; Olson, 1999; Slack & Yoo, 2005; Willis, Kilegman, Meurer, & Perry, 1997). For this reason, it is important for mothers to have basic nutritional knowledge (knowledge about what constitutes a balanced diet, what foods provide required nutrients, and how to prepare nutritious meals) and access to nutritional resources for their families.

Research indicates that parental attitudes, particularly maternal attitudes, towards nutrition affect children's exposure to foods, their habits, their portion sizes, the variety and amount of fruits, vegetables and meat eaten, and their preferences (Contento, Basch, & Shea, 1993; Horodynski, Hoerr, & Coleman, 2004; Taylor, Gallagher, & McCullough,

2004; Wardle, 1995; Varian, Lin, Ralston, & Smallwood, 1999). These effects have been seen to have the strongest influence during early childhood when the mothers act as the provider, enforcers, and role models (Clark, Goyder, Bissell, Blank, & Peters, 2007; Golan, Fainaru, & Weizman, 1998; McCaffree, 2003; Wardle, Carnell, & Cooke, 2005). Additionally, the more maternal knowledge, positive attitudes, and motivation about nutrition and health, the better the child's diet; which suggests that a mother's motivation can affect what she feeds her children (Blaylock, Variyam, & Lin, 1999). Furthermore, mothers who are most knowledgeable about nutrition demonstrate the most positive child feeding practices such as offering balanced meals and nutritious snacks (Conrad, Gross, Fogg, & Ruchala, 1992); importantly, as a mother's nutritional knowledge and attitude improve so does her child's diet in that the fat intake decreases and fiber intake increases (Colavito, Guthrie, Hertzler, & Webb, 1996).

**Gaps in maternal nutrition knowledge.** Adults are primarily responsible for food choices for young children; yet, many mothers do not fully understand the foods and nutrients their children consume (Baranowski, Sprague, Baranowski, & Harrison, 1991). Research suggests that mothers underestimate energy intake in school-aged children by 7%. Data also show only 65% agreement in food items between observed (by an outside party) and recalled data (a 24-hour recall by the mother) (Baranowski, Sprague, Baranowski, & Harrison, 1991). This suggests that mothers do not know exactly what their school-aged children actually eat, which may also be true of younger children.

**The Importance of Parental Food-Related Behavior.** The food choices mothers make directly affect those of their children. Research has shown that the diet of most low-income adults is substandard and exposure to a variety of foods is limited. This can lead

to an especially high risk for diet-related health problems in young low-income children since parents are primarily responsible for the child's exposure and consumption of foods (Baughcum, Burklow, Deeks, Powers, & Whitaker, 1997; Lee, Hoerr, & Schriffman, 2005; Townsend, 2006; Veuglers, Fitzgerald, & Johnston, 2005; Williams, et al., 2005; Worobey, Pisuk, & Decker, 2004).

University of Pennsylvania Human Development professor Leann L. Birch and associates have conducted years of research on children's feeding practices (infant through adolescent), examining both the predictors and consequences of various eating behaviors. Their studies have focused particularly on development of food preferences and problems of energy balance (i.e., obesity, dieting, food controlling strategies, and disordered eating). Birch and associates have found that parents directly influence what children eat by what they, the parents, purchase, prepare, offer, and encourage their children to eat. They have also found similarities between parental eating behaviors and weight and that of their children. Additionally, research indicates child overeating when parents withhold access to high calorie snacks and foods or use foods as a reward, removing the association between hunger and eating (Birch, 1981; Birch, McPhee, Shoba, Pirok, & Steinberg, 1987; Birch, Zimmerman, & Hind, 1980; Fisher & Birch, 1999; Francis, Ventura, Marini, & Birch, 2007; Galloway, Fiorito, Francis, & Birch, 2006; Orlet-Fisher, Rolls, & Birch, 2003). While these findings contribute to our knowledge about feeding practices, there are clear limitations in generalization because the samples used were largely Caucasian, urban, and middle class.

**Perceived barriers to providing nutritious meals.** Because of the importance of children's early healthy eating habits, it is important to understand how mothers perceive

barriers to their ability to provide healthy meals and teach healthy eating habits to their young children. Omar, Coleman and Hoerr (2001) conducted focus groups with rural low-income caregivers (both men and women) to assess nutritional needs and barriers in establishing healthy eating habits in young children. The participants were asked questions about their influence on what and when children ate, the amounts that children ate, and their knowledge about nutrition. Results indicated that these parents felt that work schedules, cost of food, inadequate time for shopping and meal preparation were all barriers to providing healthy meals to their young children.

**Poverty.** Poverty places families at risk for poor health and nutrition. Nutritional health can be viewed as a pathway through which poverty influences other child outcomes, such as cognitive ability and school achievement (Brooks-Gunn & Duncan, 1997; Slack & Yoo, 2005). Even if low-income parents have knowledge about basic nutritional needs for their children, few who live in poverty are able to provide for those needs (Horodynski, Hoerr, & Coleman, 2004). According to the United States Department of Agriculture (USDA, 2007), poverty rates are higher among rural children than among urban children. According to 2003 United States Census estimates, approximately 7.5 million rural persons (or 14.2% of the rural population) were poor, compared to 12.5 percent of the rest of the United States (United States Census Bureau, 2003).

Individuals who live in poverty suffer from poor nutrition more often than those who do not live in poverty (Devaney, Ellwood, & Love, 1997). They suffer from higher incidences of adverse health and development, and are more likely to have behavioral, emotional, and academic problems (Brook-Gunn & Duncan, 1997; FRAC1, 2006; Olson,

1999; Slack & Yoo, 2005). Low-income women show high rates of obesity, creating a risk of the same problem for their children (Hoerr, Hordodynski, Lee, & Henry, 2006; Townsend, 2006; Veuglers, Fritzgerald, & Johnston, 2005; Williams, et al., 2005). Moreover, research suggests that large numbers of low-income adults do not possess specific dietary knowledge about the consequences of a poor diet, do not know what types of dietary practices are healthful or what food should be eaten to maintain a healthy diet, or what they should be providing for their children (Gleason, et al., 2000). Consequently, children living in poverty are particularly likely to be poorly nourished (Devaney, Ellwood, & Love, 1997).

Utilizing focus groups with low-income, rural mothers, Woman, Infants, and Children (WIC) health care professionals found that that mothers lacked basic knowledge about child development (when a child is ready to eat certain foods, when they should introduce solids) and child eating behaviors (fluctuation in amount eaten, preferences, and appropriate portion size) (Chamberlin, Sherman, Jain, Powers, & Whitaker, 2002). Additionally, the WIC professionals felt that rural-low income mothers were focused on surviving daily stressors, used food as a tool in parenting (as a reward or punishment for behavior), and had difficulty setting limits around food for themselves or their children (particularly around high fat snacks).

Moreover, Baughcum, Burklow, Deeks, Powers, and Whitaker (1998) found that low-income mothers set few limits in general on eating for their children. Mothers reported that they allow their children to eat what they want, as much as they want, and when they want. Mothers reported that they frequently used food as a tool to calm down a toddler during a temper tantrum. Both male and female caregivers identified the

cultural/community influence of family members, especially their own mothers, as having an impact on their feeding practices with their toddlers. Additionally, grandmothers were found to strongly endorse early infant feeding of solids (cereal and table food) and guided the mothers' decision-making in that regard (Baughcum, Burklow, Deeks, Powers, & Whitaker, 1998).

***Rural living.*** Rural low-income families have been considerably understudied. Yet this population is among the largest in the United States and has the greatest potential threat for health risks and developmental complications, in part because of poor diet quality (Hoerr, Hordodyski, Lee, & Henry, 2006; Townsend, 2006; Williams, et al., 2005). Johnson, Guthrie, Smiciklas-Wright, and Wang posit that America's rural children's diets are less compliant with dietary recommendations than that of their urban counterparts (1994).

According to a recent study, rural residents experience higher rates of obesity and overweight (20.4%) than people living in urban areas (17.8%); even with education and age held equal, rural residents of every racial/ethnic group are at higher risk for obesity (Patterson, Moore, Probst, & Shinogle, 2004). Many factors may contribute to this difference between urban and rural populations including: rural demographics (residents tending to be older, less educated, and of lower income than urban residents), and the presence of fewer grocery stores offering fewer options (Hoerr, Hordodyski, Lee, & Henry, 2006; Patterson, Moore, Probst, & Shinogle, 2004; Townsend, 2006; Veuglers, Fitzgerald, & Johnston, 2005).

Living in a rural area provides unique challenges and barriers which are different than those of urban living. Rural low-income parents have identified a variety of external

challenges that affect their ability to provide good nutrition, including demands of work or school that require long hours away from home (partially due to long traveling distances), lack of money with which to buy high-quality, nutritious foods, persistently higher prices of gasoline, and a lack of funds and time to travel to distant larger grocery stores, forcing them to use smaller more expensive markets (Omar, Colman, & Hoerr, 2001; Stuff, et al., 2004; Williams & Drummond, 2000). Additionally, rural area living may add other unique barriers to family life including difficulty in acquiring adequate transportation, lack of available medical services, and less access to federal and state programs (e.g., Medicaid, State Child Insurance, Food Stamps, WIC) (Brooks-Gunn & Duncan, 1997; McGarr, Dwyer, & Holland, 1995; Hamelin, Habicht, & Beaudry, 1999; Stuff, et al., 2004).

**The intersection of rural living and poverty.** Kruger and Gericke (2003) reported that their focus groups with rural, low-income mothers of children aged 3 and younger revealed inadequate nutrition knowledge and adherence to cultural (community) practices such as adding rice cereal to baby bottles when infants were just 3 months old, starting babies on table food very early (between 4 and 6 months) and using food as a reward for desired behavior (Chamberlin, et al., 2002; Kruger & Gericke, 2003).

**Influences of family and community.** The results obtained by Kruger and Gericke (2003) also revealed that community and family cultural messages had a powerful influence on the feeding practices and eating patterns of these mothers. It seemed that the young mothers found it very difficult, if not impossible, to ignore the suggestions and ideas of their ill-informed family members and peers. These results suggest a need to better understand the motivations of rural, low-income mothers that

lead to decisions about feeding their children.

### **Summary**

With the rise in obesity in America (particularly within rural low-income communities), it is imperative to understand the knowledge, behaviors, motivation, and barriers that rural low-income mothers have in providing nutritious meals to their young children. Although previous studies have produced important results, there are several limitations that need to be addressed. First, while many studies have examined various aspects of feeding practices, often the population studied is largely Caucasian, urban, and middle-class — limiting the generalizability of the results. Second, qualitative interviews with rural low-income mothers of young children aimed at increasing the understanding of their knowledge, behaviors, motivations, and barriers have never been conducted. Third, no study has investigated the perceived successes of rural low-income mothers in providing nutritious meals to their young children. Previous research has focused almost exclusively on problematic feeding practices.

Understanding the knowledge, behaviors, motivation, and barriers of rural low-income mothers of young children is necessary in order to effectively develop nutrition prevention and intervention programs for this population (Patterson, Moore, Probst, & Shinogle, 2004). The current study uses a qualitative research design to describe the knowledge, motivations, and practices of these mothers.

## CHAPTER 2

### RESEARCH DESIGN AND METHODS

Qualitative descriptive methods were used to describe rural low-income mothers' knowledge, motivation, and ability to provide nutrition to young children. The study involved one interview with each participant. Recursive examination of the data was used to refine the emerging themes and ideas.

For this study, each participant took part in an interview with the researcher in person. Data collection and analysis occurred simultaneously throughout the study. After I achieved a level of saturation (total of 18 interviews, of which the data from 16 were used) the interviewing ceased. It was important to use personal interviews in order to capture important interactions, explanations, meanings, and opinions of the participants.

#### **Participants**

**Recruitment/enrollment procedures.** For this study, the plan was to recruit low-income rural English speaking mothers who are at least 18 years old and who were living with biological, step, adoptive, foster, or other children between the ages of 12 and 59 months. There is no fixed formula for determining the sample size when performing qualitative interviews. Originally, I planned to seek approximately 25 to 35 rural, low-income mothers for one-on-one interviews. However, I hit a saturation point at 18 interviews and stopped data collection, but the analyses described below include interviews with 16 of the 18 mothers. Saturation point is the point at which no new information is received and the ideas and experiences expressed by the participants becomes repetitious. Data from the two mothers were not analyzed because the

participants did not fit sample criteria. Both mothers indicated over the phone that their income and their children's ages met my criteria; however, while conducting the interview, I discovered that they both had children over the age of 59 months and that their incomes were too large to qualify for Food Stamps or WIC. Thus, the final sample included 16 mothers.

**Exclusion of persons under 18 and males.** Individuals under the age of 18 were excluded; there were two reasons for this: 1) those under 18 are not considered legal adults and thus could not consent on their own to participate; and 2) all individuals in the Baby Beep Maternal and Child Health Recruitment Database from which I recruited participants are 18 or older. This study focuses on mothers' knowledge, motivation, and ability; males therefore did not qualify to participate in the study.

**Eligibility criteria.** One of the eligibility criteria for participating in the study was for the mother to be considered to have a low-income. For the study, low-income is defined as at or below 185% of the 2009 poverty guideline, which is the cut-off for eligibility to participate in WIC. According to the Department of Health and Human Services, 185% of poverty guideline would then be \$40,470 for a family of four living in the continental United States in 2009 (USDS, 2009).

Additionally, another criterion for the study was that the mothers must live in a rural area to participate. This study counts as rural any county that has 50% or more of the population residing in rural areas or an area that has an overall density of less than 500 people per square mile (USCB, 2000b). Eighty-five (74%) of the 115 counties in Missouri have 50% or more of the population residing in rural areas, and 34 (39%) of 115 counties are considered 100% rural (USCB, 2000). I selectively chose woman from rural

counties (50% rural or more) within a 50-mile radius of Columbia. Using these parameters, 17 counties qualified; 7 are 100% rural and 10 are 50% rural or greater (USCB, 2000b). Any woman living in an urban or semi-urban area was excluded from the list of potential participants. Recruitment of minority participants was expected in the following proportions: 8% African American/Non-Hispanic, and less than 1% Asian, and American Indian, which is consistent with the census information for the Missouri population.

**Selection of sample.** Initially I selected individuals from the Baby Beep Maternal and Child Health Recruitment Database. The database was developed for Dr. Linda Bullock's program of research to make it possible to systematically examine low-income, rural woman in Missouri. All of these women have previously participated in one of Bullock's studies and have consented to be entered in the database with the knowledge that contact may be made at a future time for other studies. For the current study, women from the database were selected based on theoretical sampling. Women who qualify for the study were randomly chosen from the database by the program manager of the Baby BEEP Study, Mr. Richard Tayloe. Initially, Richard took the qualifications for the study and extracted those data from the Baby BEEP Maternal and Child Health Recruitment Database in order to provide me with a working list of mothers (N=73). After looking over the list I found that 17 of the mothers' children were now too old, disqualifying them from the study, which left me with 56 mothers. At the beginning of recruitment I selected every second mother to call and when that did not yield enough contacts with mothers I went back and called the other mothers until I had a sufficient sample. After several interviews and analysis of the data I grew concerned that the

mothers from the BEEP Maternal and Child Health Recruitment Database had already participated in may have positively affected their answers towards nutrition. In order to control for this possible bias I began to ask the women who participated in the study if they had friends who might be interested in participating in the study, whom fit the recruitment criteria. At the close of the study the participants included 11 mothers from the Baby BEEP Maternal and Child Health Recruitment Database and 7 mothers whom were friends of those women.

On average I made two telephone calls to each woman in order to contact them (range 1-4). Of the mothers in the BEEP Maternal and Child Health Recruitment Database that were contacted and explanation of the study provided, three declined to participate in the study; one of the women was currently in jail and two declined because of time constraints. Of the women who were referred by women in the study, seven of nine women participated with two declining because of lack of interest in the study.

Once telephone contact with the mother was made, detailed information about the study was offered, explanation of the steps to maintain confidentiality given, and any additional questions the mother had about the study were answered. For mothers from the Baby BEEP Maternal and Child Health Recruitment Database, if the mother continued to demonstrate interest in the study, she was asked questions about her current situation which indicated her eligibility for the study ("How old is your oldest child?" "What is your current household income?" etc.). Provided individuals met the inclusion criteria and indicated willingness to participate, I explained the oral consent, and then obtained the needed demographic and contact information. A future time for the interview was then arranged. Participants were paid \$20 gift card from Wal-Mart for their participation.

Mothers were then given detailed instructions on the meeting time, place, and expectations for what would happen at the meeting; all but one interview took place at the women's homes, and the other was at a local library at the mother's request. Three days prior to each meeting, I called the mothers to remind them about the up-coming meeting.

**Final sample characteristics.** All participants were rural, low-income, English-speaking Missouri mothers who are at least 18 years old and who were living with biological, step, adoptive, foster, or other children between the ages of 12 and 59 months. Mothers of whom their only children were younger than 12 months or older than 59 months of age were excluded. For this study, I was not concerned with feeding practices used with older children or with infant/toddler feeding practices involving formula, breast feeding, or baby food. The reason for excluding non-English speaking mothers is that I am not fluent in any other language. Actual racial make up of the sample consisted of 10 (55.25%) Caucasian and eight (44.44%) African American women. None of the African American mothers had formally participated in the Baby BEEP study.

For this study the average age of the mothers at interview time was 25 years old with a range of 20-33. The average age of the mothers at first birth was 20 years old with a range of 17-28. The average number of individuals in the household is 3.88 with a range between 2-8 individuals. Eleven of the study participants were single (61.11%), three were married (16.67%), two were currently separated (11.11%), two were divorced (11.11%). At the time of the interview 16 of the 18 women who were interviewed lived with their children (and some with a partner). Only two of the women lived with extended family. Employment status for the mothers in the study were as follows five

work full time (27.78%), four are unemployed (22.22%), four are homemakers (22.22%), three are students (16.67%), and two work part-time (11.11%). Of the eighteen women twelve (75%) report having some college education, three (18.75%) have a high school diploma, two (12.5%) women have vocational training, and one (6.25%) has less than a high school diploma. Table 1 is a list of the federally run program in which the moms in the study participated in (N=18).

Table 1

*Federal Programs Participated In*

<b>Federal Program</b>	<b><i>n</i></b>	<b>%</b>
Food Stamps	13	72.22
Woman, Infants, and Children	13	72.22
Medicaid	16	88.88
Section 8	3	16.66
Unemployment	2	11.11
TANF	4	22.22

**The Interview Protocol**

This study focused on the mothers' nutritional knowledge and where she gets that knowledge, motivation or influences, and the barriers to providing healthy meals. Many studies have examined the nutritional knowledge of mothers but few have looked at this specific population. Moreover, past studies looking at rural low-income mothers have seldom concentrated on the motivations of the mothers in providing the meals. The interview protocol for this study includes questions such as: "How do you decide what to eat each day?", "How do you decide on the meals that you prepare for your children?", "Where can mothers get information about feeding their children?", and "In your opinion, what is a healthy meal for a (age of her child) child?" At the beginning of the interview, each of the mothers was asked about her knowledge about feeding her child(ren). The

interview included questions about what was typically fed or eaten at each meal, where the mother obtained her nutritional knowledge, if she felt she had enough knowledge, if her immediate and extended family contributed to that knowledge, etc. (see Appendix A for full questions). Starting off the interview this way provided me with the ability to assess the level of understanding of nutrition that each individual mother had.

Examples of questions specifically tailored to yield further understanding of mothers' motivations are:

- “When a meal succeeds with your child, what does that mean to you?”
- “What influences you to provide healthy meals?”
- “Are there times when other things become more important than providing healthy meals to your children?”

In order to address the barriers that rural low-income mothers experience while trying to provide healthy meals for their young children, the mothers were asked:

- “All parents have to feed their young children; what are some of the challenges you encounter?”
- “What resources are available to low-income rural mothers in feeding their children?”
- “Do you feel like you can provide healthy meals to your children?”
- “Are there times when it is harder to provide healthy meals compared to other times?”

While developing the interview schedule, I sought the advice of nurses who have prior contact with and experiences working with this specific population to ascertain if the questions were appropriate and would be understandable to the mothers. After

obtaining the committee's and IRB approval, I conducted two pilot interviews with mothers from the database. There was no need to change the interview schedule, as the questions yielded the types of answers sought.

### **Interview Procedures**

Individual interviews were conducted with the mothers. For each in-person interview, I drove to a convenient location for the mother (i.e., mother's home, public library, etc.) to conduct the interview. Each individual was orally consented into the study (as approved by IRB) and then the interview was conducted.

When conducting the interviews, I used a recorder (hand-held recording devices) to capture what the participant said. The interviews consisted of open-ended questions asking the mothers about their knowledge, motivation, and barriers to feeding their young children and lasted approximately 60 to 90 minutes (see Appendix A).

Qualitative interviews are unstructured in nature so that the interviewee feels free to express openly his or her experiences. The questions guide the interviewee but in no way restrict her responses (Morse & Richards, 2002). Thus, the interviews were semi-structured in nature with the interviewer asking several key questions and probing the interviewees with specific follow-up questions for clarification and additional understanding. As categories emerged, subsequent interviews explored the emergent categories and conditions. Therefore, as the analysis progressed, the focus of the interviews broadened. After the interview the mother was asked to fill out the Mother Demographic Questionnaire (see Appendix B). In addition to the interview data, I maintained memos for each interview completed. The mothers agreed to future contact to clarify any idea or concept that I might be unclear about during data analysis.

## Data Analysis

After each interview, I listened to the recording and wrote memos (reflective journals) about broad themes I heard discussed by the participant, observed behaviors, and other impressions left by the participant (Coyne & Cowley, 2006). Memos are comments recorded after an interview is completed to serve as memory cues when analyzing the data. I used memos to help me remember specifics about each woman's situation. The memos later were coded in an effort to capture all the meaningful data.

The overall themes that emerge in the initial interviews helped me refine the questions for subsequent interviews. In qualitative research, data collection and analysis can occur concurrently.

I then transcribed the interview verbatim into Microsoft Word files. After finishing each transcription, I verified it by listening to the digital recording while reviewing the transcript word by word. During this process, all personal identifiers were removed and each participant was given a numeric subject code to protect confidentiality.

Following Glaser's (1978) work, the constant comparative method was used throughout the process. The coding process worked at a conceptual level, enabling a level of abstraction from the data. Data analysis included three types of coding 1) open coding, 2) axial coding, and 3) selective coding. Data collection and analysis were interwoven in time during the study.

**Open coding.** Open coding of data began after the first interview. This helped guide further interviews. Open coding involves coding the data line-by-line to identify prevalent indicators in the data (LaRossa, 2005; Strauss & Corbin, 1994). Indicators are interviewees' words, phrases, and sentences (e.g. time, money, nutrition) that seem to reflect discrete concepts. Indicators that group themselves naturally together inform

narrowly defined categories, or concepts. The following indicators are examples which may naturally form the concept of “too little time”:

- “I don’t have time,”
- “I have too many other things to do,”
- “I don’t get home from work until 6:30 and everyone is starving by then”

It is important during this stage to ask generative questions and to try to understand the connotations behind the data being received from the participants. For example, what does Mother A mean when she stated that she “can’t cook vegetables like she sees on TV!” Does she mean she does not have the resources (food, time, equipment), the knowledge (cooking ability), or does she mean that her family would not consume the food and it would be a waste of money? Further questioning to clarify meaning is necessary at this point.

**Axial coding.** During axial coding, the data was put back together in new and different way by making connections within and between the categories that were established during open coding (Creswell, 1998; Strauss & Corbin, 1994). Codes that convey similar underlying meanings were combined to form larger concepts or categories (e.g., low nutritional knowledge about appropriate portion sizes). For each of the interviews I constantly compared the new data with the emerging ideas and themes from the previous interviews to see if new codes or concepts needed to be developed. Refining of categories was a continuous exercise within the coding process. As I coded each interview, I strove for authenticity (whereby the findings truly reflect the participants’ experiences and reality) as new perspectives and codes were uncovered.

The purpose of axial coding is to develop hypotheses as well as to look at the relationships between and among the concepts developed to this point (LaRossa, 2005). The data is reassembled by identifying three criteria for each category: 1) causal conditions (the conditions, events, or incidents causing the formation of a category), 2) action/interaction strategies (how individuals act and interact with respect to the category), and 3) consequences (the outcomes of the strategies or action taken) (Strauss & Corbin, 1998). The properties (characteristics or attributes of a category) and dimensions (the extreme possibilities of the category) for each of the categories is identified at this stage in the analysis to more fully develop them. Thus, in axial coding, there is intense analysis of each category (Strauss, 1987). This intense focus on categories is necessary because the categories represent the phenomena under study.

**Selective coding.** The final step in data analysis was selective coding (Strauss & Corbin, 1998). The process of selective coding is similar to that of axial coding, with the exception that analysis occurs at a more abstract level. After concepts are developed, core “big picture” themes (e.g., finances as the reason for inability to provide nutritious meals) are identified. Core themes are developed through analysis of the interconnectivity among concepts, where I ask myself which concepts group together to form the main story (or stories) of the data. Core, big-picture categories under which related axial categories are unified are identified.

For example, during this study, a core theme found was the ways in which the mothers cope with the barriers they see in feeding their young children nutritious meals.

**Reliability.** In order to establish reliability within the study I used member checks, with approximately 30% (or about 5) of the mothers. Member checks take place

after coding, to check the researcher's understanding of the meaning of participant statements. Additionally, I ascertained inter-coder reliability with an individual who coded 20% (3 interviews) of the transcripts using the developed code book. The transcripts checked were randomly selected to best ensure that all of the codes developed were checked within the process. The calculated percentage of agreement between me and the other individual who coded the transcripts was 88% accuracy.

## CHAPTER 3

### RESULTS

I looked for emerging themes in the data I had collected. While analyzing the data, I looked for differences between the responses of the Baby BEEP mothers and their friends, but detected no differences in the responses of these two groups. As I analyzed the data, I grouped my findings into four categories: (1) what mothers want for their children and why; (2) challenges; (3) feeding strategies; and (4) sources of strength.

The major theme that emerged in the first category (what mothers want for their children and why) spoke to strong desires to do what is best for children by putting their children first, safeguarding their health, willingness to ask for help, having persistent conviction despite challenges, wanting family togetherness through food, and ultimately not wanting their children to be hungry. The major themes that emerged in the second category (challenges) included difficulties associated with lack of knowledge about nutrition, child/behavioral challenges, problems related to work schedules, dealing with poor role models, money-related challenges that are particularly acute in poverty circumstances, lack of social support for healthy eating, distance between home and well-stocked grocery stores, and lack of advanced planning.

The themes in the third category (strategies for putting knowledge into action) included permitting unhealthy behaviors, using various methods to supply healthy foods (i.e. making healthy food accessible, finding playful ways of encouraging eating, being conscious of being a role model), combating different influences about feeding practices (i.e. feeling various types of pressure, not caving into pressure), gaining knowledge from

WIC and trusting them as a source of nutritional information, and choosing not to follow the guidelines. The themes in the final category (strengths) included overcoming personal situational barriers, improvising, coping with disagreements with partners, coping with winter, leaning on family support, making do, recognition of bad habits in others, exhibiting personal determination.

### **What Mothers Want for their Children and Why**

When the mothers were asked what influences them to provide healthy meals and what makes a meal successful in their minds, all 16 said that they want what is best for their children. This notion was articulated through statements about a) putting their children first ( $n = 5$ ); b) wanting their children to have a better childhood and adulthood than their own (hope) ( $n = 6$ ); c) desiring to protect their children from health concerns (diseases that ran in the family [ $n = 13$ ], overweight and obesity [ $n = 9$ ], and dental problems [ $n = 13$ ]); d) willingness to accept help (WIC, Food Stamps) for their children despite stigma or embarrassment ( $n = 5$ ); e) having persistent convictions despite challenges ( $n = 6$ ); f) wanting family togetherness through food ( $n = 9$ ); and g) ultimately not wanting children to go hungry even if the food provided was not the healthiest ( $n = 9$ ).

**Putting children first.** An overwhelming sense that emerged from interacting and speaking with these 16 mothers is that the mothers are trying really hard to do what they have been taught about nutrition from various sources such as the WIC program, pediatricians, and trusted close friends and family members. While they may not have all the answers to what is nutritious, how much a child should be eating, or even what foods fall within certain food groups, the mothers seem genuinely concerned about providing healthy meals and having their children grow up healthy. In all of the mothers there

appeared to be a great resolve to improve schedules, be more consistent, serve more vegetables, serve a variety of food items, admit that they can do better and try to do so, and learn more through research, taking classes, and asking questions about concerns. Ultimately these mothers appear to be very proud of their children. They put them first in the choices that they make, find it distressing when they cannot provide for them the way they would like, and have hope that their children's lives will be better than their own.

Mary Beth, 24 and a mother of three stated:

Sometimes they will ask for something specific that we don't have, especially if it is good and nutritious like carrots, and that really bothers me that I can't give them what they want. Like M will say "don't we got no carrots" and then look in the fridge and say "no carrots in there" and I will say "we don't got no carrots" and she will say "I want some carrots" and I will say "do you have the money"? So I make it into a joke, it is like she wants them and I can't go get them so that is hard for me.

Some of the mothers ( $n = 6$ ) alluded to the fact that they were trying very hard or doing their best but that they don't always feel that is enough. Shelley, 22, and mother of five children under age 4 stated: "It is hard, I try and get it [food] as fresh as I can and I do my best," and Donetta, 33, stated "I pay attention to what and how much she is eating so I think I do [the best I can]. I want to make sure that she is eating everything that she needs."

Several of the mothers spoke of how it makes them feel to provide good meals to their children. Melinda, 22 and mother of three young girls, stated:

I guess when it has been a nice warm meal and they liked it I guess it does make me feel good that I prepared something that was nice and warm and hearty and that everyone liked it and when they ask for seconds I think well at least I know they liked it and they are getting full and that is what I base my meal plans on.

Another mother of one stated that when a meal has been successful it “makes me feel good, like I am a good mother” and that it has been successful when “he eats well and I think that what I gave him was a good balance and so that is when I know that I am succeeding” (Malissa, 20). Janice, 28, a young mother of three talked about how she felt about what a successful meal is for her children and how she associates feeding them with showing her love to them. She stated a meal has been successful when “they are full, that they are not asking for more to eat, that they can relax and calm down that they are happy and I am happy that they are full.” She continued by stating “yeah, it is one of the ways I can do that [show love], not to say that it is the only way or that if I don't feed them super healthy I don't love them.”

These mothers have the desire to put their children's needs first and often that is seen in what choices they make about the foods they buy and serve their children and the sacrifices that they make themselves. Margaret, 25, and mother of two young children stated “I always wanted to be a mom, they are the first thing, my job never comes first, nobody comes first, my kids come first.”

Katie, 20 and mother of one, stated that she “...always buy her [daughter's] food first and then mine, so I will always have hers and won't have to worry.” Even with the desire to put their children's needs before their own there are many times when these mothers are unable to provide the food that they would desire for their children because

of the financial restraints that they experience. Alison, 31 and mother of two young children, stated when asked if there are things that she would like to provide for her children that she unable to because of price she stated: "Yeah vegetables, mainly green beans, peas, they like salad, tomatoes. I try and buy everything fresh. I used to buy organic but I can't afford that so I try and get some organic and then some others." It appears that for mothers like Alison, that have not always lived in a low-income situation, that not being able to provide what they feel is necessary or desirable nutritiously to their children is even harder emotionally than for those mothers that have always had a limited income and relied on government programs.

**Safeguarding health.** How much mothers wanted the best for their children was partially indicated by their comments about the need to safeguard their children's health. These concerns were about family medical history. Mothers wanted to help their children avoid becoming overweight or obese or develop dental problems. Another indicator found in the interviews of wanting what was best for their children included expressions of hope, specifically hope that their children would be healthier if provided better food and more exercise. Included in this idea of hope is that their children would have healthier teeth and less dental problems throughout life if they provided them with less sugar. The mothers have hope that if taught to eat properly and if provided with a good role model (the mother themselves), that children would grow up to have positive eating habits and not become obese or overweight like themselves. (The last was true for only some of the women.) Such hopes were seen in many of the comments made by the mothers. Katie, 20, and a mother of one stated: "I want to her to be healthy and I don't want her to grow up and be obese and stuff like me." Additionally, Vickie, 24, stated:

I don't want to be diabetic and it runs on both sides of the family, like I have nine cousins and I think all of them have it and my brother has high blood pressure and my dad and mom have hypertension and I don't want to have that, cancer also runs in the family and I don't want to have it and I don't want my kids to have it either.

*Wanting to protect children from family diseases.* The largest factor influencing the women to provide healthy meals on a limited budget was family medical history ( $n = 13$ ). Many of the mothers' families suffered from diabetes, hypertension, cancer and other chronic illnesses that greatly affect the quality of life. These experiences with family members seem to have had a great impact on most of the woman.

Mary Beth, 25, a mother of three young children under the age of 5, sat across from me in her small, cramped, hot public housing apartment with all the doors and windows closed because of the "bad influence of the neighbor kids." When asked why she worked hard to provide healthy meals on her limited budget, she stated that:

I want to be healthy, my grandmother was 65 when she died and she had diabetes and Alzheimer's and so she didn't eat right and so got sick and then got an infection and died. My mom has cancer in the lungs, she does smoke, but... I don't know what all the fuss is about, I tried a cigarette and ugh, don't know what the hell the commotion is all about; it is just not healthy. There is all kinds of cancer in my family and so I want to be healthy and I want my kids to be healthy....

Vickie, 24, a very thin mother who admits she only eats one meal a day, voiced concern throughout her interview about her 2-year-old son's lack of appetite. She seemed

concerned that her (healthy) son needs to eat three meals a day, even though he often did not because of his pickiness and lack of appetite. Vickie commented that what influenced her most to serve healthy meals to her children was:

I don't want to be diabetic and it runs on both sides of the family, like I have nine cousins and I think all of them have it and my brother has high blood pressure and my dad and mom have hypertension and I don't want to have that, cancer also runs in the family and I don't want to have it and I don't want my kids to have it either.

***Wanting children not to be overweight or obese.*** A large concern of the mothers was that their children not be overweight or obese ( $n = 9$ ). Three of the nine mothers used themselves as examples of being overweight, but the other six mothers were normal weight to thin in appearance. One thin mother stated: "Because my family gets fat when they get older – like obese, they are obese – not your normal nice people but big, nasty, sloppy people that you need to go and see Jenny Craig so I don't want my kids to be like that" (Mary Beth, age 24). Katie, age 20 and an overweight mother of 1, stated: "I want to her to be healthy and I don't want her to grow up and be obese and stuff like me." One of the heavier mothers wanted to make sure that her style of feeding today would not interfere with healthy living in the future for her children. She stated: "I don't want them to be overweight like me, I want them to do as much and live long and I don't want them to have any health problems because of what I feed them when they were young...I want them to be healthier than I am, thinner than I am" (Jana, age 30).

Two of the overweight mothers spoke of teaching their children how to eat now so that they will make correct choices as adults. Katie, age 20, stated, "I want to get her to

where she know what to eat and how to run a home by the time that she [is] off to college.” The other overweight mom stated “I want her to learn to eat healthy and be strong, and my mother would fry everything and soda everywhere and junk 24/7 to eat and she is really overweight so I want E. to grow up and have healthier habits and know how to make good choices, not like me” (Jana, 30).

***Wanting children to have healthy teeth.*** Dental hygiene was also cited as a concern and reason to provide healthy meals to children. A mother of three young children under age 5 spoke of not eating candy and sweets because her teeth are “rotten.” She did not want to feed her children the same foods her mother fed her so that they would have strong healthy teeth. She said:

I don't do candy because all of my back teeth rotted out and had to be pulled because of cavities and I don't want that to happen to them....You learn from your childhood and I don't want them to have those problems like I did...my teeth are all crooked and some of my teeth got taken out early because they were rotten and so then they messed up my other teeth because there was too much room, so I want to have their teeth to be perfect straight....Yeah, their teeth are important to me. (Mary Beth, 24)

When asked what influences her to want to provide healthy foods, Pamela, 23, a mother of two young boys, stated: “When I see other little kids with rotten teeth...we don't do a lot of candy, we don't do a lot of sweets, we don't do soda, we drink water or juice or Kool-Aid.”

**Willingness to ask.** Five of the mothers expressed interest in improving their lives and consequently their children's by gaining specific information about what to feed

their young children. When asked if there was anything that she wished she knew more about in regards to nutrition, Jana, 30, answered "I didn't realize that they needed so much less than I thought – especially the meat and dairy – it just surprised me to learn that... and am trying to learn more." Donnetta, a 33 year old mother of a one-year-old girl, stated:

I have lots of information. I get it from WIC and I have all of these books, I am kind of a book worm and I try and stay up on anything that is changing because I had gestational diabetes and I am borderline now... [When asked about information on portion sizes she responded]...yeah, I have that in my WIC folder, they give me all these nutritional sheets every time I go in and so I try and go through them and then I put them in a binder.

Understanding that they are examples to their children in their eating habits and patterns has led many of the mothers to express an interest in learning more about nutrition and how to feed their children in a healthy manner. A few mothers expressed a desire to understand more fully what their children should be eating; referring to portion sizes and foods they should be feeding their children. Shelley, 22 and a mother of 5 under the age of 4, stated, "I really don't know, what, how much is healthy because I know that if you eat too much of something it isn't healthy no more even if it is healthy. So how much [portion sizes]?" Katie, 20, mother of one, stated:

What or how I should [feed my daughter]? I know that they said introduce the vegetables first and then the fruits and then meats and starches and things like that. Like I wasn't able to figure out what she actually likes because she seems to jump back and forth between things and it is hard to know what to give her.

***Wanting to understand meal planning.*** Other mothers were interested in learning about meal planning, easy recipes and ways in which to best get the recommended serving into the meals that they prepare for their children. Malissa, 20, and mother of a 3-year-old boy, responded that she wanted more information about “Like a meal plan, different dishes that other people know of so I don’t have to keep making the same meals over and over and we have more variety. I know that my friends will give me recipes for cool casseroles that they make but I wish there was something that could be mailed out to us that had recipes that people would eat on them and that would help.” While some mothers have these questions others in the group stated that if there was something that she did not understand or needed to that she was willing to ask whomever she needed to get answers and understand. Melinda, age 22 and a mother of three, stated:

If I ever have a question then I will ask and I think that is why I am not stressed with nutrition because I am not afraid to ask and I think that that is where other people have a big problem because they won’t ask and then they are just stuck worrying. My favorite quote is ‘that the person who asks questions is a fool for five minutes but the person who is afraid to ask is a fool for life’. That is what I was taught and that is what I do.

***Having persistent convictions despite challenges.*** When the mothers were asked if their conviction stays the same regardless of circumstances (sparse money, busy schedules, low food) six of the mothers denied changing their conviction or actions regarding the serving of healthy foods. Pamela, 23, told me that even though she often has little time, she always makes a home-made meal. Jana, 30, bought fruits and vegetables for her children even though she could barely afford them (she did not receive

Food Stamps) and her husband didn't think it important and it often became a source of contention between spouses. Alison, 31, mother of two, said that even though her resources are very limited, she felt strongly about serving nutritious foods. "Yeah, it is really important to me – I always try and provide something healthy but I can't always afford what I want, like organic and just have to make do with what I have."

**Wanting family togetherness through food.** A final aspect of the feeding children theme was the importance that many of the mothers placed on dinner and home cooked meals. For some providing a home cooked meal instead of stopping at McDonalds or making Hamburger Helper seemed as important as providing the meal itself. Janice, 28, and mother of three young girls stated, "I try and cook for them more and get them healthy meals every day... I try and make sure I have everything so I don't need to go out to eat." Pamela, 23 and mother of two small boys, felt that providing home cooked meals was a tradition that was important for her to pass on to her children. She stated:

I don't like Hamburger Helper, so I don't cook that stuff, my sister might but I would rather make a meal and cook it and take the time. That is the way my mom and aunties cook at their homes and always have home cooked meals. I want my kids to have that, it is important to have home cooked meals.

Some of the mothers saw dinner as an event in their homes. As in Pamela's statement above it is seen as a tradition that is important to their children's lives and one in which they want their children to participate. Mary Beth, 25 and working mother of three, talked about how important it was for her to have all of her children together at dinner time and to sit and eat together. She stated:

We always sit together for dinner and they know to say grace before they eat. If the TV is on I will turn it off. I used to have to tell them but now I don't they just know to say grace before they eat and morning prayer and night prayer is important.

Elizabeth, 24 and working mother of two, felt that it was important "that we are sitting down together, and that everyone eats till they are full...it is really nice when we all get to eat together." Shelley, 22 and mother of five, explained that she feels the importance in dinner lies in the development of relationship and bringing together of the family, something she experienced as a child and that she wants for her children. She stated:

It is really important to me to sit down all together and eat; I like to sit down as family at a table for dinner. When I was growing up in my mom's house we had to sit down and eat dinner as a family. In my mom's house we had two bedrooms, it was me, my mom, and my two brothers. She slept in the living room, my brothers slept in the in one room and I was in the other room. We only had one television in the house, if we wanted to watch television we had to watch it together. If we were going to eat we ate together, whatever it was we did it together. I want that, it makes a stronger family and I believe in that for me and my kids.

Another element for the mothers in the study is that some felt that dinner had to be larger and more elaborate if the father was present for the meal. Melinda, 22 and mother of three, stated "Their dad is usually at work during the day so I don't do a big lunch but we do a big dinner." Jana, 30 and mother of two, determined what type of meal

(large or small) she would make depending on if her husband was going to be home to eat with her and her children. She stated:

A lot of it depends on whether he [her husband] is at home or not, if he is not here I will not make a huge meal, if it is just me and them we will just have something easy. Like last night I threw a chicken breast in the oven and baked it and then had a salad and vegetable, if he was here then I would have done something more with the chicken.

**Not wanting their children to be hungry.** Given that this sample consisted of low-income rural mothers, financial concerns (spoken of later) often were a source of great concern for the mothers. Nine of the mothers spoke specifically of wanting to provide meals that were nutritious and ultimately were concerned that their children were fed and not hungry. Because of money constraints, this sometimes was seen as a challenge. This was seen in nine of the 16 mothers who felt that the most important thing often for them in providing meals was just to make sure that the children were fed and no longer hungry. For many of the mothers this became more of a concern towards the end of the month because their Food Stamps or food budget would be gone. At these times, the mothers said they became more concerned with feeding their children in general than with making sure the meal was well balanced or provided all the food groups. Elizabeth, 24, a working mother of two stated:

I think I provide healthy meals or try to, it probably isn't the most variety meals but the kids eat it and are full and that is what is most important to me, that they aren't hungry...well I think that the most important thing is that they just have something to eat, whether it is a complete nutritious meal or just food.

Linda, 21, a mother of one felt that it was most important to feed her child whether or not it was balanced. She stated: "getting him a meal is really important; getting him a balanced meal isn't as important." Jessica, 24, a mother whose financial situation is more desperate than many of the others in the study because she does not receive Food Stamps commented:

Well, yeah, I mean I want him to be healthy. I just try and make sure that he is fed. At the end of the day that is my goal to make sure that he is fed and not hungry and that he has everything he needs and is not starving.

When Melinda, 22, was asked if she felt like she could provide healthy meals to her three children she stated: "Financially, no, I can't provide him healthy meals. I feel like I can provide him with meals, but that technically healthy meals no, not the grilled and fresh food, no."

### **Challenges**

I asked the women about the challenges that they encountered in feeding their children or providing for their needs. These included the following challenges: difficulties associated with lack of knowledge about nutrition, child/behavioral challenges, problems related to work schedules, dealing with poor role models, money-related challenges that are particularly acute in poverty circumstances, lack of social support for healthy eating, distance between home and well-stocked grocery stores and lack of advanced planning. Challenges dealing directly with the children included: a) picky eaters ( $n = 11$ ); b) distracted children ( $n = 7$ ); c) working mom schedules ( $n = 7$ ); and d) poor role models ( $n = 7$ ); e) reluctance to ask for help ( $n = 5$ ); and f) media influences ( $n = 8$ ). Money challenges included: a) having enough food for the entire month ( $n = 9$ ); b) struggling without Food Stamps; c) needing to learn to budget or work

with the current economic situation ( $n = 5$ ); d) lack of advanced planning ( $n = 10$ ) and e) lacking good shopping patterns (availability of grocery stores (only shopping at Wal-Mart or other discount markets,  $n = 10$ ).

**Mothers' nutritional knowledge.** An important step in understanding the perceptions of rural low-income mothers on feeding their young children begins with gathering data on their basic understanding of scientific recommendations regarding nutrition and feeding. I heard contradictory messages from the mothers. Some mothers felt that they had ample knowledge provided by WIC, physicians, family and other sources (as seen in the theme Mothers Wanting What is Best for Their Children) while others said that they did not have enough information or knowledge about what foods children really need to be eating or the necessary amounts of particular foods. Linda, 21, and mother of one, seemed to struggle quite a bit with what to feed her son, how to feed him and what was healthy, so she said she relies heavily on her mother and sisters for support and healthy meals for herself and son. She stated:

The other day my sister and I went shopping and I told her that we eat a lot of mac and cheese. She told me that I needed to eat more things that are healthier so, I would say that no. I don't know exactly what he needs at his age. Except to run over to my mom's house and get a meal there.

Many reported that meeting all of the food pyramid guidelines within a given day was very difficult. Nine of the mothers felt that it is very difficult to get as many fruit and vegetable servings in as recommended during lunch and dinner (the meals where they felt fruits and especially vegetables belong), saying it seemed like an impossible task. Moreover, those whose children were in daycare because they had jobs felt that they

often had no idea how much their child had consumed from each food group, even though the daycare generally provided this information for parents. Alison, 31 and mother of two stated:

I don't always do a great job. It's just a lot to get it all in...how you get a kid to eat that much of fruit or veggies everyday without something like the V8 drink that gives it to them. It is just really hard because really it is just in two meals, lunch and dinner and it seems like a lot so I don't always get in that much every day.

Elizabeth, 24, a working mother of two, expressed the difficulty she faced trying to get her children everything that they were supposed to be eating daily:

It is really the food pyramid guide on how much daily servings of things are that is overwhelming. I just don't know how I can force my kids to drink eight glasses of milk a day and I know I can use cheese too, but it is really just--I just don't see how it is possible to consume that much food on a daily basis. It would probably be helpful to know how much I am lacking [from what they ate at daycare] and how much I need to make up for the rest of the day from what they have already had. What do you count as a serving of green beans? Is it one tablespoon, three mouth full's? I honestly don't even know. I guess if you look at the food pyramid, it tells you how much of vegetables and fruits you need each day, and I don't know how it is humanly possible to feed myself that much on a daily basis let alone my kids. I think I do a good job and I try but I don't get any where near eight vegetables a day and seven glasses of milk.

Mary Beth, 24, a working mother of three, professed to be health conscious as she feeds her children, yet she felt that she struggled to get in all that her children need everyday. Jessica, 24, a working mother of two, also feels that it is "impossible" to get in

all of the vegetables and fruits recommended each day for her son, especially since he has become older and more independent in his thinking and behavior. She stated:

I feel like it is impossible to get multiple servings of the vegetables in the two meals each day, because I guess some people put vegetables in omelets each morning but I am not going to, we don't eat omelets, I think, well I guess that if we had kept with it better since he was a baby, but since he has become a toddler and learned the word "no" and "I don't like it" it has become more challenging to get him to eat enough vegetables each day. You can't force feed them... I can offer him tons of things but if he doesn't want it I can't force him to eat it.

Struggling to know how much to serve their children often was coupled with the desire to make sure that they were full. However, the mothers' expressed that it was difficult for them to know when children were full. Many of the mothers seem to be more lenient than may have been necessary; their comments suggested that leniency came from uncertainty about when their children were truly full and how much they should be eating. This is illustrated in the following dialogue:

Researcher: Do you have information on what portion sizes the children should be eating?

Mary Beth: No, I just let them eat until they are full. I try not to give them too much. What I notice is that, well it happened yesterday. She (15 months old) said she was done eating, we had tacos, and she said she was done. She had had two, and I was munching on Hawaiian bread and so I got her down and she came over and ate some of my bread. And then she wanted some more taco and so I said 'Are you done or do you want something else?

You need to tell me what you want because if you are still hungry then you can have more food.' I really don't know what makes them full or what to give them. Another thing I have noticed is that if they know that they are going to get a dessert, like applesauce or fruit cup, and so they will not ask for more because they want the fruit cup and then they want another taco or something.

Researcher: So they [the children] will eat dessert and then say I am hungry after?

Mary Beth: Yeah, because they know I am not going to say no. They know if they are hungry I am going to stop what I am doing and get them something or give them a snack. If they are hungry I try and get them something.

Another area in which many of the mothers struggled was in regards to portion sizes for their children. Half of the mothers ( $n = 8$ ) felt that they did not have adequate knowledge about what portion sizes their young children should be eating. When the mothers were asked if they knew how much their children were eating, often they responded with comments such as, "as much as I can get them to eat" (Jill, 25) or "I give them what I guess they will eat that day" (Shelley, 22) and Margaret, 25, and mother of two added to this idea by stating "I let them eat until they are full." Shelley, 22, a mother of five children under age 5, commented, "I don't know much about everything that is healthy, I just know what they need. Like milks and meats and vegetables and fruits; but, like about how much it supposed to be in a day I don't really know about that" and Alison, 31, and mother of two stated "They just eat all day and I let them eat until they are full." The combination of these two views is seen in the following dialogue:

Researcher: Do you feel like you know how much the kids are eating?

Elizabeth: With my son yes, with her no. Just because she will eat a little here and then a little there and then she will leave it on her little table and here comes the dog and I am not sure if she ate it or it was the dog.

Researcher: Do you feel like you have enough information on portion sizes?

Elizabeth: I don't have any information on portion sizes. I just try and give them how much I think that they will eat. Really it is more with her [daughter] because he [son] will eat anything, he is a garbage disposal. With her she is picky and she will eat a little of this but with a four-year-old girl I am not completely sure what she should be eating for portions. I just give her what I give myself because I guess I eat like a four-year-old girl.  
(laughing)

Malissa, 20, and single mother of a 3-year-old was very concerned about the foods that her son was eating. She provided him with fresh juice made from a variety of fruits and vegetables, worked hard to provide balanced meals, but even then struggled to know how much he was actually consuming. When she was asked if she knew how much her son was eating she stated:

No. I just want to make sure that he has one solid bite of everything before he stops. I pay attention to him eating, but I am also eating and I am done first. So when he says that he is full, that is only if I still see a large amount of food there I want to make sure that he gets a good bite of everything because he won't be eating again for a couple of hours and I need to know what he gets for snack. If he doesn't eat his veggies than I will give him some for snack and so instead of goldfish he will get peas and rice.

**Child/Behavioral challenges.** During the interviews the mothers talked about a two main challenges presented by children who were (1) picky eaters, and/or (2) easily distracted.

*Picky eaters.* Many of the mothers expressed frustration and confusion as they tried to figure out what their children actually liked versus what they were just being picky about that day. Shelley, 22 and mother of 5 young children, sees different challenges at different ages. She responds to her children in different ways based on their ages, as seen in the dialogue below.

Researcher: What challenges do you encounter while feeding your children?

Shelley: When they don't want it and you are trying to give it to them and they are like no. They shake their head or spit it out and that is the main challenge with the one-year-olds.

Researcher: Does that get frustrating?

Shelley: Yes, it gets frustrating, because sometimes you are like I really don't feel like getting up and making you something else, stop being choosy and eat what I give you, but they are babies and they don't understand that.

Jessica, 24, felt that her son is a very picky eater and what he likes and will eat seems to change from week to week presenting financial difficulties on an already very tight budget. She stated:

There are some things that we know that he just does not like, like the cheese thing. He has never cared for it and probably never will. Sometimes he likes hamburger meat and sometimes he doesn't care for it. You know, since we are low income we eat a lot of it. Sometimes he will chow down and other times he

will spit it back out. There are some things that we know for sure he likes, and we try and serve that, but a lot of things go from week to week. He went through an obsession with broccoli and then when we bought a big bag. He wouldn't eat it, and that was frustrating because I don't eat it, and it cost money and now I have a whole bag of it and it isn't going to be used. I have to watch all my money, and so the biggest challenge is his constant changing of what he likes.

Malissa, 20, a single mother, made the following comment on how frustrating having a picky eater can be and how she has learned to cope with that frustration from experience:

I remember one time getting upset about something that he didn't like, and I stood him up and shouted at him, "then go to your room," and he looked so sad, and I remember never wanting to do that again, and so after about 2 minutes, I walked in there and gave him a huge hug and said, "you didn't even try it," and he said, "I know." And so he came back in and tried and ended up liking it! I know that I shouldn't have gotten so upset and just explained it better but I know now.

***Distracted Children.*** Another challenge that almost half the mothers ( $n = 7$ ) expressed was that their children are very social, and they have a difficult time getting the children to settle down and actually eat their meals. Getting a child to eat while distracted by others, especially other children, is difficult for many mothers. Many of the mothers felt that they had more success in having their child eat their food when there were fewer people around. Katie, 20 and mother of one, stated "If there are a lot of people here, then she will not want to eat and will be in everyone's food or trying to crawl up the stairs. She is very social, so it is more successful with less people around." Alison, 31 and

mother of two, felt that her children being so easily distracted, especially by other children, accounted for one reason why the family eats almost all of their meals at home. She stated "Getting them to sit down and concentrate on eating is another reason we stay in. They will just run around and eat a little here and a little there and it drives me crazy...even worse when there are other kids around, they just want to play."

Linda, 21, a working single mother of one son, often eats her meals at her mothers' home where there are many little children living. Within this situation lies the difficulty of getting her son, who is small for his age, to eat more than a few bites while being distracted by the toys and his cousins at his grandmother's home. The following dialogue with the researcher further illustrates the distraction difficulties.

Linda: He will eat at my mom's, but he is distracted, and he would rather play than eat. Those kids over there live there, so when it is time to eat, it is time to eat. It isn't a problem because it is home, but he [Linda's son] wants to get out the cars and ride the bikes.

Researcher: So he is distracted by all of the fun things there are to do at your mom's?

Linda: Yeah, I think that this why he doesn't eat as much there.

Researcher: If you do cook here at home does he eat alright for you?

Linda: Yeah, he will eat with me. But like right now, he will not eat because I am in here talking with you, but if I had my pizza and he had his then he would eat it; I know he will.

**Working mothers' schedules.** The mothers that worked outside the home seemed to have a more difficult time sticking to a consistent schedule of meal time, especially dinner, than those that were stay-at-home moms. This was particularly difficult

because of the time lost in their work schedules, traveling to pick up their children from daycare and then going home to prepare a meal. Elizabeth, 24 and working mother of two, felt that it was difficult to have a consistent dinner time because of her work schedule. She stated:

It really depends on what time everyone gets home and how hungry everyone is.

So I am trying to work on more of a schedule where I have dinner on the table at seven instead of starting dinner at seven.

The best of intentions do not always translate into behavior, and some of the mothers honestly admitted that the way they feed their children changes according to the way their day is going. One mother of five admitted that "...if I am really busy, I don't know, for real, I don't know whatever I can give to them real quick..." (Shelley, 22).

Mary Beth, 24, a working mother of three young children stated:

If I am tired I will throw at them some fruit cups and applesauce and go and lay down— no chips no candy – the most they are going to get is macaroni and cheese crackers and maybe ranch crackers, wheat crackers and bacon crackers so that is the closest to junk food that we get...later I will cook them a meal.

Other mothers talk about the challenges of time in providing healthy meals and made comments about making quick meals to serve their children such as combining rice, chicken, and vegetables; warm soup and sandwiches during the winter; or quick and easy spaghetti and red sauce on busy nights.

**Poor models.** Another challenge the mothers faced was dealing with poor models of healthful eating ( $n = 7$ ). Four of the mothers struggled with their husbands/partners not supporting them or blatantly being poor examples of healthy eating habits in front of their

young children.

One mother expressed the frustration of having a poor example in the home, the children's father, but said that she maintained her motivation to keep her children healthy. She stated that the example she has chosen to set for her children in eating healthfully has even helped her own health. She stated that one of her large challenges is "their dad, because he always wants to eat junk and so she does too [the father is eating ice cream and chips during the interview], because he is an example to her" (Jana, 30).

*People who undermine the efforts of the mothers.* The challenge of having poor models in the family was exacerbated by other ways in which family members undermined mothers' efforts to limit children to healthful foods. Mothers complained that grandparents do not respect their wishes to feed their children only healthful foods (spoken of later in Strategies of Putting Knowledge into Action). I observed this first-hand during my interview with Margaret when her son asked her for some candy that was kept up in a container on top of the refrigerator. She said "no, not until after lunch." Then her mother (the child's grandmother) came into the house and the son again asked her for some candy. The mother again said "no," but the grandmother gave the child five pieces of candy anyway. At this point, Margaret was frustrated, looked at her mother and said "I told him 'no.' You heard me. Why did you give him that candy?" The grandma replied "It is Grandma's prerogative" and walked away.

Sitting in her small front room with her husband talking with me about sacrifices that they make for their children, Jana, 30, and mother of two, stated "Well, vegetables and fruits that are fresh are super expensive, but we just deal with it because we have to

have it. E. likes them too much.” Her husband didn't look too happy about this when she said it. It seems like it has been a contentious issue between them.

Some worry that others will think they are wasting money, even spending it on drugs, if they ask for money so that they can buy food. Talking with me in her trailer, Malinda, 22, and mother of three young girls, stated:

Sometimes the end of the month is harder than the beginning of the month because we will be running out of things that we need, and I don't want to keep asking and keep asking because I don't want anyone to think that I am using [drugs] because I am not. That is why I buy a lot of soup because if I have then I can always serve that. When I go to the food bank often times they will hand out soup and with my kids not being picky eaters they will always eat soup.

***Reluctance to ask for help.*** While many mothers felt that their families were great sources of support and help, some ( $n = 5$ ) were reluctant to ask for help, not wanting to appear dependent on others. When Jessica, 24, was asked if she had people to whom she could go when she needed help, she responded by stating:

Yeah, but we hate to go to them. The first year he was born we had to use them so much, he was sick and had seizures all year long and so the people we have we owe so much money too. So I hate to go and ask them for anything more because of what we have asked for in the past. So, we are no where close to being caught up on that or our medical bills yet...I have friends but I wouldn't tell them about my problems or ask for help, they have enough of their own things to worry about.

Kameron, 30, a working mother of two, stated that she doesn't think that she gets the support she needs: "No, I don't have support. I don't know; it is just one of those things that you figure out along the way and that nobody tells you how to do or helps you with."

**Media influences.** One pressure that was discussed by 8 of the 16 mothers is that of media influence on children and parents concerning what should be eaten. This was often evident as mothers described the types of foods they bought such as Gerber Graduates, Gerber Baby Meals, Gerber Snacks, etc. Mothers claimed that they felt that these were the best foods for their babies because television and other media had taught them this. Jessica, 24, and mother of one who does not receive Food Stamps struggles immensely with providing the things that she wanted for her son. She stated: "I watch *Jon and Kate Plus 8* and I think, 'I am very proud of you for eating all organic foods but I can't do it and can't afford it.'" In the following dialogue, Jana, 30, spoke of how she saw this media influence:

Researcher: It seems that creating strong healthy eating habits is really important; do you ever feel social pressure to feed your kids certain things?

Jana: I think that commercials designed for kids really influence them.

Researcher: For the good or the bad?

Jana: Both. We have to have the yogurt with Dora on them or fruit snacks with Diego.

Researcher: The media really knows what they are doing don't they?

Jana: Yeah, and the kids are influenced about what they want to eat from them.

**Money-related challenges.** Many of the mothers in the study referred to challenges related to money and the stress that is associated with financial concerns. Money challenges were expected to be a large concern for this population of women who live at or near the poverty line.

*Having enough food for the entire month.* Nine of the 16 mothers in the study expressed great concern about how their current financial situation often lead to the family not having enough food to last the entire month. As seen in category Putting Kids First, the mothers struggled with their inability to provide nutritious food throughout the month and would instead concentrate on making sure the child(ren) were fed and full instead of if the meal was nutritious. Pamela, 23, and mother of two who lives with her mother commented that “the end of the month” was the most challenging time. Jessica, 24, and a mother of one, expressed concern about not being able to feed her son throughout the month because money is so tight because she does not qualify for Food Stamps (see Struggling without Food Stamps below). She commented that they buy food when they have money and continually spoke of buying “poor people foods” which for her were canned goods, lots of starches, and cheap meat like hamburger.

How often the women are paid at work and when the Food Stamps are delivered contribute to this pattern. Food Stamps are given in monthly allotments. Eight mothers said that they make one large grocery shopping trip on the day or day after they receive their funds and then go back to the store throughout the month for milk, bread and other necessitates. Often, fresh fruits and vegetables are only bought at the beginning of the month or for the first week or so after the Food Stamps are received. Alison, 31, and mother of two children stated: “I do one big shopping trip when I get the Food Stamps

and then we will go and get milk or what ever a couple more times during the month.”

Janice, 28, and mother of three young girls stated: “I shop once a month, it is hard with a bunch of little kids to go and get things so I just do it once and get it over with, but if I need something during the month, like milk, I will go and get it then.”

Shopping habits seem to be similar for those not receiving Food Stamps, but those mothers are paid more so budgeting tends to be less of a problem in some ways for those mothers. Brittany, 30, who lives with her daughter, husband, and in-laws in a small trailer in a very rural area stated:

We go once a month at the beginning of the month when we get paid, and then we will go back later in the month for a few things if we need milk or eggs or anything like that. Fruit will not last through the whole month but we will buy more. I bought 16 pounds of bananas and they were gone in less than a week.

When asked about how and when she shops, Jessica, 24, who also does not receive Food Stamps and for whom money is a large difficulty stated that she goes grocery shopping “when we have money; it sounds awful, but we are not starving or anything. We probably haven't gone grocery shopping, I mean grocery shopping, in two weeks. I mean we have grabbed a gallon of milk or something.”

***Spending of Food Stamps money.*** Throughout the interviews, I noticed an interesting phenomenon. As I talked with those mothers that did receive Food Stamps ( $n = 13$ ), they seemed to imply that there is a distinct division in their minds between the Food Stamps money and money that they used for other essentials (i.e. rent, clothing, transportation, utilities, etc.). Many of these mothers seemed to feel that the food stamp allotment was the only money that they could possibly spend on groceries, and when that

was depleted the only other sources for food were food banks, churches, families and friends. These mothers seemingly did not consider the other funds they received as possible parts of the food budget if necessary.

*Needing to learn to budget.* With this observation also came the thought that though many of these mothers do not have any money left over at the end of the month with which to buy food, with planning and budgeting, it might be possible for some of them to have enough money to buy food. Incidentally, five mothers indicated that they needed to learn to budget their Food Stamps and money better and that by doing so many other financial worries would be solved. Mary Beth, 25, felt that she could do better if she learned to budget what she was given. She stated:

I don't need more Food Stamps because it has went up even with me working and making what I make, so if I could budget better the Food Stamps and money throughout the month I can have more at the end.

Two mothers specifically indicated a desire to learn how to budget so that their money would go further. When asked if was difficult to budget her Food Stamps, Kameron, 30, mother of two children under the age of two and living in public housing in a very rural community, stated: "...especially at the beginning, and there was less money then too." When asked about being taught about budgeting she stated:

There are some posters up in different places like WIC and the Welfare office but no one has ever talked to me about how to go about doing it or how to stretch your money or anything – I have seen some classes but I have never done one...well I will stick the paper in my purse and that is where it will stay until after the class is over. It is just too hard to make a special trip into Marshal at

night to sit around and have someone teach you about spending money when it takes money to get there.

The women talked about the cost of food and how as the economy has hit harder times they have been able to provide less with the food stamp money that they receive. These woman's financial struggles often limit the amounts and types of foods that they are able to provide for their families. Jessica, 24, who lives in an old trailer at the edge of a rural community, made the following comment about feeding her young son:

We pretty much feed him what we have. We don't keep that much food in the house. Well we have food, but we don't have huge amounts of options. Like right now, if I was to offer him a snack, he would be able to choose between crackers and fruit, because that is what I have for snack right now. This is a poor woman's food choices here (laughing).

When asked if she had noticed a difference in the amounts and types of foods she could purchase in the current economy, Kameron, 30, a working mother of two and a student, stated, "Oh, yeah, I can't buy as much meat, and formula is \$15 a can."

***Lack of advance meal planning.*** Meal planning was a particular challenge for many of the mothers ( $n = 10$ ). When asked if they planned meals in advance or ever created menus for more than the current day, the outstanding answer was, "no." This response was often with a quizzical look accompanied by a "how" and "why" planning would be important. It seemed that these mothers did not make a connection between saving money, shopping for specific ingredients and cooking meals for their families. Meal planning has been found to be a way to save money and make the most of a limited budget (USDA, 1999), yet, it seems that many of these mothers have not been taught its

importance, have not seen its importance, or simply do not have the time and energy it takes to make a menu and then prepare those meals. I frequently asked the mothers if they planned loosely by buying the ingredients needed for favorite meals or common meals around the home while shopping. Many of the mothers affirmed that this was often what they did while in the grocery store. The following dialogue between Jessica and me illustrates this.

Researcher: When you go shopping do you do any kind of meal planning or do you just have in mind the things you like and buy the things you need for those meals?

Jessica: The second one. I went grocery shopping last night; I went into the shop wanting to buy several different kinds of meat and hamburger was on sale for \$1.76 a pound. I am not going to spend \$5.00 a pound on chicken when I can buy four pounds of hamburger for that, you know what I mean? So, a lot of things I know how to cook are around hamburger, I grew up in a poor family and hamburger is cheap. So I bought all of the things that I need for taco salad, spaghetti, fettuccini, burgers, pretty much what we usually eat.

When Malinda, 22, a mother of three young girls, was asked if she does any meal planning, she replied:

I don't meal plan. I know what I normally feed them and so I buy that up, and sometimes I make a list, and then I will only have to go once... Well I will figure out what we usually would make for that time and then I just keep on hand what I need to make those meals.

When asked if she had ever thought about doing that type of planning before she went to the store she simply stated “no.”

*Struggling without Food Stamps.* In my study there were four mothers whose incomes were just barely too high to allow them to qualify for Food Stamps (one mother made \$3 too much a month), but who did qualify for WIC. These four mothers reported having a much more difficult time providing healthy meals for their children. All four mothers spoke in terms of making sure that the children were fed and full and were less worried about the healthiness of the food itself, citing that it is more important that the children are full than if they have had the healthiest meal. This subgroup of woman struggled much more financially to provide than the mothers on Food Stamps who felt that they had access to healthy foods through the Food Stamps program.

These same four mothers struggled more to provide healthy meals especially during the winter when other bills (gas, utilities, food, etc) were higher due to the cold weather. Linda, 21, a working mother of one, stated:

I barely don't qualify because it is just me and him (child) and that is why I am trying to cut down on the eating out for me because if I eat at work then I am spending money all day but if I don't go out and bring food it is better. Not enough money...I have my sisters and some close friends that do help me out some, everyone is concentrating on how to survive with everything being so much more expensive...my sister gave me some money on her Food Stamps to help me out and that has helped so that I can get the things I need. I am limited at the grocery store, vegetables are expensive now, meat is expensive...

Jessica, 24 and working mother of one, had similar problems with money because of her inability to qualify for Food Stamps. She stated:

I could get Food Stamps if I lied but I won't do that, I will buy Food Stamps from other people but that is a problem and I could get in trouble with the state. If I said that his father didn't live here then I could get Food Stamps but I don't and so we can't because we make \$3 too much. So, we just get by with whatever we can.

Jessica was one of the two mothers who have very limited incomes (as mentioned previously, one mother missed the cut-off by \$3 a month) and who indicated that they use a less legal method to get through the month sometimes. Malissa, mother of one stated: "I buy Food Stamps from people...they give me a \$100 worth of Food Stamps and I pay them \$50 cash, it is their way of getting cash and it is incredibly illegal." Both mothers felt that this was a last resort, but one that they had both taken several times in the past few months in order to provide enough food for their families in their current circumstances.

**Availability of grocery stores.** Another pattern that I saw for this sample concerned the places where they shop. As stated above, all of the mothers in the study shopped at Wal-Mart or other area discount markets because of the prices and availability to the women. For many of the women, any other grocery store would have been approximately an hour away from their homes, making traveling there to shop impractical and a financial burden. Pamela, 23, an unemployed mother of three, illustrated this point well when stating:

We buy it [food] at Moser's, Patricia's, Aldi's and Wal-Mart. We go wherever the things we need are the cheapest. Like meat from Patricia's and Moser's, canned

goods from Aldi's and the rest from Wal-Mart or a combination of places. I would love to go to Gerbs or Hy-Vee but it is just too expensive.

One family had recently moved to a rural area from a larger city in the state and commented on how little variety is available in their new home. Jana, 30, stated:

There were grocery stores for everything and huge varieties within the stores, and here there just is two stores and that is it. He [husband] likes seafood but there just isn't any variety and there are no ethnic or variety of foods at all.

### **Feeding Strategies**

Each mother was asked at the beginning of the interview to describe the foods that she and her family ate during breakfast, lunch and dinner. A large variety of foods were mentioned by the mothers. Table 2 has the data arranged by meats, starches, vegetables, fruits, sweets and snacks. Of note is that 100% of the participants listed hamburger and chicken/turkey as meats; 100% reported eating noodles/pasta/macaroni; 87.5% reported green beans and 68.75% reported corn; 93.75% reported apples and 87.5% reported bananas as commonly eaten in the home each week.

Table 2

#### *Common Meats Eaten By Children in the Study*

<b>Meats</b>	<b><i>n</i></b>	<b><i>Percentage of Mothers Reporting</i></b>
Hamburger	16	100
Chicken/Turkey	16	100
Lunch Meats	9	56.25
Pork Chops	8	50
Hot dogs/Corn dogs	8	50
Eggs	8	50
Sausage/bacon	6	37.5
Roast/Steak	5	31.25
Fish	5	31.25
Fish Sticks	5	31.25

Table 3

*Common Starches Eaten By Children in the Study*

<b>Starches</b>		
Pasta/Noodles/Macaroni	16	100
Potato/Sweet Potato	13	81.25
Rice	12	75
Bread/Rolls/Biscuits/Breakfast Breads	11	68.75
Cold Cereal/Oatmeal/Grits	9	56.25

Table 4

*Common Vegetables Eaten By Children in the Study*

<b>Vegetables</b>		
Green Beans (canned or frozen)	14	87.5
Corn (canned, frozen, fresh)	11	68.75
Peas (canned or frozen)	8	50
Carrots (fresh)	8	50
Salad (fresh)	8	50
Tomatoes (fresh)	5	31.25
Mixed Vegetables (frozen)	4	25
Cucumbers (fresh)	4	25
Green Peppers (fresh)	2	12.5
Greens, Broccoli, Celery, Spinach, Zucchini (fresh)	1	6.25

Table 5

*Common Sweets Eaten By Children in the Study*

<b>Sweets</b>		
Cookies/Little Debbie Snacks	6	37.5
Candy	2	12.5
Cinnamon Rolls	1	6.25
Cake	1	6.25
Jell-O/Pudding	1	6.25

Table 6

*Common Fruits Eaten By Children in the Study*

<b>Fruits</b>		
Apples (fresh)	15	93.75
Bananas (fresh)	14	87.5
Fruit Cups (mainly peach and pear combo)	8	50
Oranges (fresh)	7	43.75
Strawberries (fresh)	5	31.25
Smoothies, V-8 Splash, Juicy Juice	4	25
Peaches (canned)	3	18.75
Watermelon (fresh)	2	12.5
Grapes (fresh)	2	12.5
Cherries, Pineapple, Pears (fresh)	1	6.25

Table 7

*Common Snacks Eaten By Children in the Study*

<b>Snacks</b>		
Crackers/Goldfish/Animal Crackers	14	87.5
Cereal bars/Granola bars	9	56.25
Fruit	8	50
Fruit snacks/Fruit Roll-ups	8	50
String Cheese	7	43.75
Gerber snacks/Cookies	5	31.25
Pretzels	4	25
Yogurt	4	25
Chips	3	18.75
Cheerios	3	18.75
Applesauce	3	18.75
Sandwiches	3	18.75
Popcorn	3	18.75
Carrot sticks	2	12.5

Five main themes related to feeding strategies emerged from the interviews.

These related to: (a) permitting unhealthy behaviors ( $n = 10$ ); (b) using various methods to supply healthy foods (i.e. making healthy food accessible,  $n = 6$  ; finding playful ways of encouraging eating,  $n = 6$ ; being conscious of being a role model,  $n = 6$ ) (c) combating different influences about feeding practices (i.e. feeling various types of pressure,  $n = 10$ ; not caving into pressure,  $n = 9$ ); (d) gaining knowledge from WIC and trusting them as a source of nutritional information ( $n = 7$ ); and (e) choosing not to follow the guidelines ( $n = 4$ ).

**Permitting unhealthy behaviors.** During 10 of the interviews, the mothers said that feeding their children changed from day to day because of the attitudes or opinions expressed by the children about the food prepared for them. Often the mothers would indicate that they followed the child's lead in what to prepare, cook, and serve ( $n=10$ ). This permissiveness, though not true of all of the mothers, was seen in many different ways and often seemed to have stemmed from negative experiences of being forced to eat or being served foods that they did not like during their own childhoods. It seems that the

mothers were more willing to comply with requests or refusals of their children than their own parents had been. This is illustrated in the following exchange with the researcher.

Jill: I am not going to force her to eat it if she doesn't like it, my mother tried to make me eat it and when I was older like 12. I didn't want to eat what she gave to us like squirrel and rabbit, because she didn't have much money and she told me eat it or starve so my rule has always been that you have to try it but you don't have to eat it.

Researcher: If she doesn't like it then what happens?

Jill: Then she gets something else. I will make her something else after she tries it, like a sandwich or nuggets (showing me some of her food in the pantry and refrigerator).

Jessica, 24, and mother of one, openly admitted that her permissiveness with her son in eating came from the fact that her and her fiancé's parents made them finish all of the food on their plate if they liked it or not. She stated:

I have never made him eat it all because our parents made us sit at the table until we finished a meal and sometimes you just can't eat anymore. When he has eaten a little bit of everything, when he has taken a bite of everything on his plate and is happy, that is our goal most of the time.

Margaret, 25 and mother of two, seemed to struggle with following suggestions given by family, friends, or medical professionals, such as the food pyramid (as seen in the Challenges theme) and eating habits. She stated that if her son does not want to eat what she serves him:

I make something different, they tell me that I shouldn't do that but if he isn't going to like it then I am not going to force him. I don't want to eat what I don't like so why should I make him eat something he doesn't like it. I treat my kids like small adults and let them have their own opinions and if they don't like what I prepare then I will not force them to eat it.

Several of the mothers expressed a desire for their children to eat what was provided yet seemed unbothered when their children refused to eat certain foods and would just continue to provide different options until they were certain their children would eat the meal. Janice, 28 and mother of three, stated "I would like them to eat everything on their plate, but it isn't a big deal if they don't. If we do have something that they don't like I try and have options for them to choose from so they don't go hungry" and Linda, 21 and mother of one, stated "I go and get him what he wants so that he will eat something, he really likes lunch meat or if we are at Grandma's I will stop somewhere when we are on the way home."

The mothers said that they intentionally cook meals that are familiar and that they know that their children will eat, thus avoiding any complaints about not liking the food, refusing to eat it, and so on. This leads to the children being fed many of the same meals again and again, which cuts down on the variety of foods offered and the opportunity for the children to learn about and be exposed to new foods. Pamela, 23 and mother of two young boys stated, "What I make are things they have already had, so I know that they like it;" and Alison, 31, and mother of two stated, "I usually don't make them anything they don't like. If it is something new they have to try it and see before deciding if they don't like it." This point is illustrated in the following exchange with the researcher and

Jill. Jill lives with her husband, in-laws and daughter, yet most meals they make and serve are designed to appeal to the only child in the home.

Jill: Usually our meals are kid friendly so she will just eat what we are eating.

Researcher: You basically decide to cook by what?

Jill: By what she likes and what she will eat.

Researcher: How hard is to introduce new foods to her?

Jill: It is hard. We try and if she doesn't like it then she will spit it up.

**Using various methods to supply healthy foods.** The mothers commented on three main strategies that they used in ensuring that their children had access throughout the day to snacks and foods they considered to be healthy. These three strategies include making healthy foods accessible, finding playful ways to encourage eating, and being conscious of being a role model.

***Making healthy foods accessible.*** The mothers placed non-perishable snacks (crackers, pretzels, etc.) on low shelves or in plastic totes in the kitchens within the children's reach; having fresh fruits and chopped vegetables on lower shelves in the refrigerator; and ordering healthy choices for the children at fast food restaurants (mandarin oranges, sliced apples, applesauce, etc.). Jana, 30 a mother of two young children stated that she keeps cut up vegetables and fresh fruits in the refrigerator and health snacks on a low shelf. She commented, "Healthy things [are] where she can get to them even if I am tired." Malissa, 20 and a mother of a 3-year-old, stated that when she eats out, she will "have him eat fruit instead of fries or something like that."

***Finding playful ways to encourage eating.*** The other strategy the mothers used was using playful ways to get their children to eat their food. Elizabeth, 24, a working

mother of two young children, when asked, "Is serving certain foods important to you?" responded by stating:

Not certain foods. When I was little I would only eat hot dogs. I think that the problem was that my mom never tried to get me to continually try things and so I try and do that and get them to eat things. For me it is important that they eat vegetables because I hate them and I want them to eat them.

She was then asked "Does it work, do they eat them?" Her response was:

P. will eat anything I give him, K. is pickier and she will give me a hard time. So, I try and be creative and say that peas are dinosaur eggs and hurry and eat them and then she will eat the whole plate. So I try and make it fun for her and then she is more willing to eat it. So vegetables are probably the most important thing for them to eat for me.

***Being conscious of being a role model.*** As these mothers have learned more about nutrition from WIC, pediatricians, Head Start and friends and family, they have learned the important role that they play as a model of eating patterns and habits for their young children. Six of the 16 mothers specifically stated that they understand that they are role models for their children and that they try hard to be good examples of eating a variety of foods, trying new foods, eating fruits and vegetables, and having a positive attitude towards food. Katie, 20, and mother of one, stated "I try and get her to eat and if she doesn't then I will try and eat it and show her the example and then she will usually eat it too." Mary Beth, 24 and mother of three said:

The kids see me eating it [healthy foods] and liking it. This really works, it works if the kids see you eating it and liking it they want to eat it too. They really like

whatever I am eating. Like M. says she doesn't like raisins but she will sit with me and watch Dora and eat a whole box of them with me.

Melinda, 20, also confirmed the importance of being an example and eating the foods that she expects them to eat by stating:

I am lucky though because they really like them [vegetables] so it is never a problem, but it is all about how you present it and the parenting that you do. And if I don't like the vegetable I would never say that to them because of course if I did then they will say the same thing. So I have to be an example.

Jana, 30 and mother of two small children indicated that she has been trying hard to teach her children by example. She stated, "it is helping me too [eating healthy], because since I eat what she eats and I am making sure that she eats what she is supposed to then I am eating healthier as well."

There were a various influences that the mothers encountered in the study such as family (immediate and extended), the media, and health care professionals. Each of the influences were addressed by the mothers in different ways illustrating how they effected by what was said or presented to them.

**Combating different influences about feeding practices.** The literature suggests that grandmothers have a large influence on the way in which their rural low-income daughters feed their own children (Baughcum, Burklow, Deeks, Powers, & Whitaker, 1998). This seems to be true for some of the mothers but very untrue for others in the current sample; many of the mothers seemed like very strong, independent women doing the best they could in the situation in which they found themselves. Some of the mothers felt pressure from their mothers or mothers-in-law to feed their children in a certain

manner and felt that their role as mother was not respected ( $n = 5$ ), while others seemed to feel no pressure to follow any advice whether it was freely given or sought after ( $n = 7$ ).

*Feeling various types of pressure.* As in many aspects of this study, when the mothers were asked who influenced their feeding habits or whose style they gravitated towards, contradictory views were expressed. Some of the women felt that they feed their children as their mothers did and others felt that they feed their children differently. Some of these mothers felt that they were influenced by their mothers but also made very different decisions from them as well, allowing for the disparity in numbers.

*Following the positive influences.* Mothers who affirmed that they feed their children like their mothers did provided various reasons, among which is the influence that their mothers had over the years as they taught their children, now mothers, basic understanding of nutrition. Shelley, 22 and mother of five, stated that her greatest influence was her "Mama because she was always big on that [nutrition] when we were young. She would say 'Make sure you eat your food, make sure you eat your vegetables, oh, you got to eat that rice because it is good for you.'" Jessica, 24 and mother of one, had a similar experience with her mother. She stated "I try and do it [feed her son] how we were raised up. My mother would give us a vegetable, a meat, and some kind of noodle. So, now he always has to have his noodles. He gets fruits in the morning and vegetables in the afternoon and the evenings."

Several of the women talked about having family that were very health conscious and would provide knowledge and ideas to help with feeding their children. Alison, 31 and mother of two, expressed a strong desire to feed her own children very healthy meals,

specifically talking about whole grain bread and pasta, lots of fruits and vegetables, and lean meats. She indicated that her mother was a great influence on her when she stated “She [mother] was really big on nutrition and everyone being healthy and so I am doing things like she did, I turned out healthy so I figured it works.” Malissa, 20 and mother of one spoke of how her mother's career as a nutritionist influenced how she was feeding her 3-year-old son. She stated “My mom was always big on you have to have a meat and vegetable and a grain at least, if not a fruit at each meal. So I make sure that he has those things at dinner.”

Melinda, 22 and mother of three young girls, felt great family support and influence for feeding her children nutritious foods. Her youngest, an infant during the interview, had several health concerns for which Melinda would have to leave her children with others while she took her daughter to doctor appointments, often for long periods of time or overnight. Unlike some of the mothers spoken of previously, Melinda felt certain that her children would be fed well in her absence. She stated:

I just learned off my aunts, uncles, mom and dad and then learn from what they provided and try and plan meals like they do...these last couple weeks with the baby, that people are always bringing in food and it is simple food but it is nutritious and good for them. So, I have not worried about them in regards to food because we have gobs of it in the refrigerator. My family and extended family help me tremendously, they will bring in food, they will come and bake food while they babysit, and when they babysit they don't just give them food to get by the day; they feed them nutritious meals.

*Feelings of frustration.* Some of the mothers expressed frustration at the way in

which they felt disrespected in their role as a mother and the way in which they have chosen to feed their children. This is seen in how others ignore their instructions on feeding their children or in the ways in which they interact or view how others feed their or other children. Mary Beth, 24 and mother of three, was very consistent throughout her interview about the importance that she places on feeding her young children healthy foods. She talked about struggling to have her family support her efforts, especially when they watch her children while she works. Mary Beth needs the child care so she must choose between free child care and her children eating healthy meals (the way she wants them prepared). When she was asked if her mother respects her decisions about how to feed her children she stated:

No. Like I came in early the other day and there was a whole chicken leg in front of her (15 month old) on her high chair. I wasn't worried about her choking because she had 10 sets of eyes on her. But it is like what she cooked it in, she fried it. Because when I make it for her (15 month old) I take it off the bone, I don't fry it and don't season hers and she [mother] doesn't pay any attention at all. They [Mary Beth's children] eat all kinds of things over there that I don't want them to and have asked my mom not to feed them.

Some mothers felt that their families, including mothers-in-law, were not supportive of the ideas for feeding and types of foods that they have decided are best for their children. One mother, Jana, 30 and mother of two, struggles with her mother-in-law telling her how to feed her children and feels a lack of ability to enforce her ideas or standards when she is in her mother-in-law's home. This has led to much frustration on

Jana's part, who is working hard to teach her daughter good eating habits, because Jana worries about and disagrees with her mother-in-law's feeding philosophy. She stated:

When we are here [home] what I say goes, but at her [mother-in-law's] place it is a big fight and often times I will let it go. But that is because we are not over there much and I can't do anything about it when E. spends the night over there. She is a person that says you must eat every little bit and you are going to sit here until you are done. I don't agree with that and I give E. new things to try all of the time so I give her the ability to not eat all of it. It has gotten to the point over there before that she made her eat until she threw-up on her plate. That is not healthy and that is going to make her not like food.

For one mother, Kameron, 30 and mother of two, her frustrations with the way her family feeds her children and the lack of control she feels over what is given to her children has led her and her fiancé to visit with extended family less often. This is seen in the following dialogue with the researcher.

Researcher: Do you ever have any worries about what they are eating?

Kameron: Not when they are here at home.

Researcher: So, you do worry when he is somewhere else?

Kameron: Yeah, my friends and relatives eat junk all day long, chips and cookies and candy.

Researcher: So, you worry about what he is eating when he is with them?

Kameron: Yes. Because I can't control it, I can't control what they give him or what he is eating.

Researcher: Do your relatives listen when you tell them that you don't want them to eat certain things?

Kameron: No. They don't listen to nobody. Their kids eat good when they are down here. We just don't go there much and that way I am in control.

*Not caving into pressure.* While some mothers felt pressure from family, in-laws, and the media to feed their children certain foods or in certain ways, other mothers within the study did not feel pressure to follow the advice that was given. Often these mothers stated that their mothers knew that this child was theirs and so not to expect them to follow suggestions unless they wanted to. Donnetta, 33, illustrated this idea by stating: "They [family] know not to pressure me. This is my baby;" and Kameron, 30, stated "I don't feel pressure because these are my kids." Often these women seemed very strong willed and want to maintain control over their children even if the other influences or pressures are from their mother and sisters. Margaret, 25 and mother of two, expressed that her family does provide suggestions and advice but that she doesn't feel pressure to follow what they are saying. She stated "No, I pretty much do what I want. Several people in my family and I butt heads because they try and tell me how to raise my kids and I am just tell them 'don't tell me how to raise my own kids.'"

The mothers in the study had various reasons for choosing to feed their children differently than their mothers. Some of those reasons include that their mothers choices of foods were limited because of income, others felt that it was their cooking preparation (frying instead of baking) that was an unhealthy choice, feeding philosophy differences (clean plate rule), and many felt that their mothers didn't provide sufficient variety of foods.

Donetta, 33 and mother of one, talked about how her mother fed her differently and gave the following reason: "Mainly it was convenience and price. She was trying to raise three kids and work and so whatever was a quick fix was what she did." Kameron, 30 and mother of two, explained that growing up that they were very poor and her mother felt that federally run programs (i.e. Food Stamps) were not necessary because they were not as bad off as others. This is something that Kameron disagrees with and as an adult participates in. (as discussed in the section on Wanting What is Best for Their Children). In the following dialogue with the researcher Kameron explained the differences between her own and her mother's feeding practices:

Kameron: I try more things than my mom did. When we were growing up we were broke. There were no steaks or pork chops, there was just hamburger and soup and that kind of thing. My mom never took Food Stamps, she was a single mom out in the country and she felt that Food Stamps and things like that were for people that were really poor and really needed it.

Researcher: She didn't think that she really needed it?

Kameron: No, she struggled and struggled and decided which bill she was going to pay this month and that sort of thing.

Researcher: So she didn't really have the opportunity to offer more to you?

Kameron: Right, she tried her best and we did have fruits and vegetables a lot.

Katie, 20 and mother of one, spoke about how she prepares her foods differently than her mother did when she was growing up. She stated:

She [mother] was always frying things and made things very fatty, like she used to make meatloaf for us and I don't so that for her [daughter]...it tastes better to

me baked because I don't like all of that greasy stuff, it is messy and I don't want it on my hands, things cook faster, I don't get spit on by grease..

Jessica, 24, and her mother differ in feeding philosophy of feeding children. Her mother was insistent that her children finish all of the food on their plates before they got up from the table, while Jessica and her fiancé do not force their son to finish all of the food on his plate. They just to want him to give it a good try. She stated "I just think it was her way to be controlling and I don't try and control his food." In addition, Jessica found that her mother did not offer her many foods and she became a picky eater so she is trying to offer more variety to her son. She stated "I am a picky eater and as a child I was incredibly picky and my mom found that the things that she never offered us we actually ended up liking. So, I try and offer more."

Jana, 30 and mother of two, felt that the way in which her mother fed her as a child encouraged poor eating habits which have followed her into adulthood where she struggles constantly with her weight. She is determined to provide healthy foods and good role modeling to her son and daughter so that they "do not end up fat like me." The following dialogue illustrates Jana frustrations with her mother's way of feeding her as a child.

Researcher: You've talked about how your mom fed you differently than you feed your kids. So did you just decide to do it the opposite way and do you bake most of your food?

Jana: I don't really fry much and when it is just E. and I. We never fry anything we bake or grill things.

Researcher: Did your mother push vegetables at all?

Jana: No. Never. She didn't like very many and anything that she didn't like she wouldn't cook.

Researcher: So what kind of snacks did she offer you?

Jana: There was always junk in the house – chips, cookies, and candy.

Researcher: Do you try and keep that out of the house?

Jana: Yeah, we have a little bit, but it is not usually in the house. Daddy likes it a lot so we have it sometimes. So my house, my kids; I can't control what they do at their house but I can control what happens in mine.

**Gaining knowledge from WIC and trusting it as a source of nutritional information.** All of the mothers at some point had been exposed to nutritional knowledge from federally funded programs such as WIC, and 13 of the 16 were currently receiving the services at the time of the interview. Within this program is an educational component where the individual receiving services and funds is required to participate in classes that teach about and demonstrate basic nutrition and simple recipes. It is from these classes and interaction with the WIC staff that many of the mothers felt that their nutritional knowledge base was learned. Seven of the 16 mothers specifically mentioned WIC as a source from which they receive nutritional information.

Melinda, 22, and mother of three when asked if she had enough information on what a healthy meal was, responded by stating “WIC generally takes care of that for me; they drill that into my head.” Elizabeth, 24, and mother of two stated “I get almost all my information from the WIC office. They have all of their little pamphlets and then they have those little classes. I have picked up some fun things from there... I do know I have learned from them.” Additionally, some of the mothers (about half of the sample) are

very compliant with what professional authority figures such as nurses, physicians, WIC personnel are telling them, and may not question what they are being told. When Mary Beth, 24, was asked if she believed the information she received at the health department to be true and accurate, she responded:

It never crossed my mind, maybe I am blind, because if the doctor tells me that my foot is broken today like it is then I will believe him. I kinda believe them because I don't feel like they would tell me something that is wrong, but that doesn't mean that I have to believe it. The whole thing with J. and his size [J. is small and underweight for his age], I am like he is just a small guy and you have to work with me on this.

Additionally, Jana, 30, when asked about agreeing with the information presented to her at the health department she stated, "It is generally what I have heard, never thought about what they say as being wrong, why would it be?"

**Choosing not to follow the guidelines.** Despite all of the education and question-asking, some of the mothers still choose not to follow the guidelines that have been set and that they have been taught about. This occurs for a variety of reasons including: deciding that what is said is not important, not feeling able to accurately follow the guidelines, and not having a complete understanding of the importance of what is suggested. Melinda, 22 and mother of three young girls, stated when asked about portion sizes:

I know what they [portion sizes] are but I don't always do it. There are some items that I do. If they want more vegetables or meat I let them, but WIC is big on

telling me not to give them too much milk but I don't think that it is going to hurt them so I let them have it anyway, but I don't load them up on sweets and sugar.

Margaret, 25 and mother of two, stated that the guidelines are just guidelines and not important to her:

Margaret: The doctor says that they are supposed to have so much of fruits and so much of vegetables but I don't do that. They have a vegetable with every meal but not fruit. If we go out to lunch they have fruit choices so they can have fruit there. But fruit for snacks and stuff like that, I don't follow the guidelines.

Researcher: You don't follow the guidelines in the food pyramid, why is that?

Margaret: I don't worry about five fruits and four vegetables a day, those are just suggestions and too hard to do everyday.

Researcher: O.K., it is just too hard to get it all in?

Margaret: Yeah, and it is just not important to me. My mom didn't raise me like that and so I don't raise my kids that way.

Melinda, 22, and a mother of one, spoke of her noncompliance in terms of how foods taste and the time that it takes to cook a healthy meal, when she stated:

I just think that a lot of things that would be super healthy for him would be disgusting, like spinach lettuce, grilled chicken – we all know that it is better fried, come on (laughing)... In my opinion it would take a hell of a lot more work in the kitchen to make a healthy meal that taste good then it would to make a meal that you give him a couple of healthy things and then some things that are aren't as healthy.

### Sources of Strength

As described above, the mothers in the study encountered numerous barriers, some unique to their situations and others common to all mothers with young children. It is important to understand how the mothers coped with these challenges. Coping strategies or sources of strength were expressed by the mothers in terms of a) looking on the positive side of things ( $n = 9$ ), b) letting go ( $n = 4$ ), c) embracing family support ( $n = 5$ ), d) making do ( $n = 9$ ), e) recognizing bad habits in others ( $n = 4$ ), and f) exhibiting their personal determination to stand firm in what they believed to be important ( $n = 9$ ).

**Looking on the positive side of things.** During the interviews, I was intrigued that nine of the mothers seem to think that their current situation (involving living in public housing, using Food Stamps, WIC, and Medicaid) was a stable and almost favorable situation. Often this positive attitude was expressed in response to questions about overcoming barriers and the social support they felt they had. I asked follow-up questions to clarify why this thought pattern might emerge and to better understand the mothers' perspectives on their situations. It was a perspective I was unfamiliar with and did not expect. For some mothers, the move from ineligibility for federally funded programs such as Food Stamps and Medicaid into a situation where they were eligible because of the addition of another child, losing a job, or moving from one state to another solved many of the uncertain and difficult aspects of their lives such as those involving housing, health insurance, and nutritious food.

Shelly, 22, and a mother of a 4-year-old, twin 1-year-olds, and twin 2-month-olds, had recently moved from the East to the Midwest and with that move became eligible under the new state guidelines to receive all federally funded programs. Throughout her interview she was incredibly positive about her public housing, Food Stamps, WIC, and

Medicaid support and the help she was getting for working toward earning her GED.

Toward the end of the interview, we had the following dialogue which allowed me to understand her contentment with her current situation much better.

Researcher: When you didn't have Food Stamps, what did you do? How did you feed your kids?

Shelley: Well I started getting WIC and at first my mom was helping with cash and their (one-year-olds') milk cans which were \$20 and over. So we were really struggling and I barely ate. I like ate once a day.

Researcher: You were pregnant at the time, right?

Shelley: Yeah, it was pretty hard, but at least the babies didn't eat table food so they were fine.

Researcher: And K. (4-year-old)?

Shelley: She was living with my mom then. I was living with my dad and it was a really bad situation. He had control of the money, food, and the refrigerator was locked – that's how bad it was; the refrigerator was locked there.

Researcher: You were how old at the time, 20?

Shelley: I was 21 and I couldn't get my own Food Stamps because I was living at my father's house and they said he had to take care of me.

Researcher: Even though you are an adult?

Shelley: And had three kids and was pregnant with twins. They said that if I was to go out and get my own place then I could get all of those benefits. You

should have seen me. I lost so much weight, I feel much better now, I gained lots of weight since then. I am happy.

Researcher: So, if you didn't have Food Stamps how did you overcome the barriers to feeding the kids?

Shelley: My mom. I would ask for help from her and she would send me food. I had a friend that lived upstairs and if my daughter needed food I could take her up there. Also in New York you can--during the week, during the summer time--you can go to the school at 7am and they serve breakfast like it is a normal school day and at noon they serve lunch to all of the kids.

Researcher: New York City, right?

Shelley: Yes, and sometimes I would go there and eat. I was able to eat because I was pregnant. They would let me eat one meal a day, so I would eat like that.

**Letting go.** Four of the mothers also spoke of needing to cope with disagreements between themselves and the father of the child about how the child should be fed. One of the main differences seemed to be in regards to how often a child should eat out at a fast food restaurant. The need for a coping strategy occurred because for several of the mothers, the child's father cared for the child while the mothers were working or going to school. The mothers in this situation coped by letting it go. Instead of trying to control how often the child was eating out with the father, they reframed the situation to highlight the additional meals as helpful given their tight budgets. Linda, 21, and a working mother of one who is ineligible for Food Stamps, stated:

His dad likes to take him out to get food. Because he is still hungry after daycare and so his dad will get him a happy meal or something after daycare a lot of times, it helps with food money so I can't complain too much.

When asked if she and the child's father have similar feeding practices, Malissa, 20, and mother of one, stated:

Malissa: Well yeah, but he does give him a lot of Wendy's. I know and that is where he gets his mandarin orange fix, but every time I pick him up he asks me 'Are we going to go to Wendy's?' and I don't want him to get used to that fast food.

Researcher: So, do you try and balance the fast food out with what you are giving him?

Malissa: Yeah, I can't control his dad so I do my best to get him what he needs.

Other mothers struggled with difference of opinion between themselves and their partners about how to get their children to eat the food that has been served. Alison, 31, has strong opinions about eating a healthy diet and incorporating whole grains as much as possible in her 2- and 3-year-olds' diet. She had had problems in that her husband did not support her beliefs on this score; she coped with that struggle by sneaking healthy foods into the family's diet. She stated:

My husband fought me at the beginning and still wants to eat white bread and things like that, but now he buys the wheat bread for the kids. I sneak in wheat pasta and he doesn't even notice or I put vegetables in things and they don't realize it.

**Embracing family support.** Five of the mothers spoke of turning to their families in times of trouble in order to cope with the situation at hand. Fortunately, the

mothers indicated strong family support systems with sisters, mothers, and aunts from whom they are able to receive assistance or pool their resources toward the end of the month in order to provide meals to their children. These meals toward the end of the month were often not as healthy, but the children would be fed, which was the top priority. When Pamela, 23, was asked if she has people that help her if she needs it to feed her two young sons, she stated:

I have my mom, aunties, sisters and we all can work together to make meals and make sure that there is always food for everyone. I can always count on them. We can always work together to make meals, and so it isn't that bad. It just isn't as good as what we would have had at the beginning of the month.

When Janice, 28, and mother of three was asked if there are times when it is harder to provide healthy meals than at other times, she stated "No, I can always go to my sister, mom or aunt if I need something or if I am running out of things and we always help each other ...I have lots of support." And when Linda, 21, a working mother without Food Stamps, was asked about getting help in providing meals for her son in difficult financial situations, she stated:

My sisters will help me out and feed us, then it is like if they run out then we all have to wait for money or Food Stamps so sometimes everyone brings their food to my mom's and we will eat it there, that way we can make the food stretch longer.

**Making Do.** Nine of the 16 mothers spoke of ways in which they learned to make do or improvise with what they had. A working mother of two, Elizabeth, 24, stated:

I try and work through it, but it really depends on what the scenario is, if it is a day where time is a factor then I just try and improvise. It is all about improvising, what is available, and what they [her children] want to eat.

Some of the mothers relied on coping strategies learned growing up in low-income rural situations to deal with their current circumstances. Donnetta, 33 and mother of one, when asked if she has places to go when times are harder in provide healthy meals, stated:

Sometimes... if I was spending too much money on other things and I couldn't get to buy food. But I grew up struggling so I can make some corn bread and beans and rice and I can create a meal and have something for us to eat.

Alison, 31, and mother of two, lives far from family and expressed her coping in the sense of making do with whatever food is left over at the end of the month. She stated:

Well, we are far from family and we don't have tons of friends and the ones we do have as many problems as we do so we can't really go to them so we just make do. Like make use of the food we have pushed aside all month because it isn't really tasty but it is food so we eat it.

Several of the mothers felt that certain times of the month or year were much harder for providing healthy meals for their children. Elizabeth, 24, a working mother of two summarized her feelings about her ability to provide healthy meals this way:

Yeah, for the most part unless it is really tight and we don't have enough Food Stamps or we need to go and buy something...we try and improvise, one night we may not have the vegetables and have the meat and the next night we may have

meatless spaghetti, that has happened to us a couple of times...it doesn't happen very often, like once every couple of months we are thinking about eating peanut butter off a spoon or something but for the most part it doesn't happen very often.

As stated previously, many of the mothers encounter even more challenging situations during the colder times of year because of increases in other household bills (such as oil to heat the home) and often money becomes tight in regards to buying food. Thus the variety and healthiness of the food often suffers. Jessica, 24, mother of one little boy and ineligible for Food Stamps, explains how she copes with this situation when she stated:

During the winter when push comes to shove we get the beanie-weenies because those are really cheap and will fill him up and he love it..... we eat a lot healthier during the summer and spring, we just eat a lot a more fruit and vegetables because they are so cheap during that time.

Other mothers spoke of specific coping strategies they used in feeding their children. Donnetta, 33, said "I will make her some noodles or grilled cheese or peanut butter for dinner maybe mac and cheese or sandwiches, those things that don't take long and are healthy." Elizabeth, 24, a working mother of two young children said that family situations, such as those involving employment and available time, changes how she copes with the demands of feeding her children. She stated:

Depending on what is going on and what we can afford to buy that month or week will definitely influence what is we make and provide for them...it depends on if my husband is working or not and how busy our schedule is.

Melinda, 22, a mother of three young children (all 3 and under) lives on a small farm where they raise cows to slaughter each year for food. She spoke honestly about how the “kind of day” affects what she decides to cook for her children. She stated:

Depends on what kind of day I am having. If I am having a really hard day, then that will be the day that they get a bologna sandwich, sometimes we will have that for supper and we will also throw on something warm like soup. Kinda what the day brings, normally we cook things that you can use hamburger with because we have the cow.

Finally, Kameron, 30, a mother of two spoke of how her meal preparation changes with the stress level she is experiencing. She stated “Yeah, especially when I am tired or stressed, on those days he is more likely to have a fruit up and spaghetti-os than steak and a vegetable.”

*Shopping lists.* A few of the mothers had been taught to meal plan and make grocery lists in order to save money and make the most of what they had. Donnetta, 33, a pregnant working mother of one, stated:

I make a grocery list and I kinda take things and decide what I am going to make with it...I plan for the week and that helps me when I go to cook and when I go shopping I will buy the things I want. Then I will plan it out as much as possible because sometimes I get tired of planning and cooking and it really helps out.

Kameron, 30, and a mother of two young children stated that she overcomes barriers to providing healthier meals by “better planning, that is the thing with the Food Stamps going up. So that you can plan and then shop instead of shop and then plan, because if you miss something you can go back and get it.”

***Recognizing bad habits in others.*** One coping strategy that was seen among four of the mothers was to recognize the lack of care they felt their friends showed in feeding their children. It seems that this recognition of bad habits on friends' part was in a sense self-affirmation that the way they were attempting to feed their children was indeed something worth pursuing. Mary Beth, 24 and mother of three young children, recognized that others choose different feeding and eating styles. She commented that, "Everyone don't eat like me," but when asked if they supported her ideas she stated, "No, my sisters and friends make fun of me. But I don't care because their kids eat horrible, lots of cookies and that's all and they are always hungry when they are over here." When Katie, 20, was asked if she felt pressure from friends in feeding her children certain ways or if they offered advice she stated:

They try to, but half of them are doing crazy things with feeding their kids, and feed them junk. The only one is L. and it is because she has already had some and she has given me good advice on how to take care of her [Katie's daughter] and what to feed her. She has also done a lot of learning about feeding her kids.

Kameron, 30 and mother of two, complained that her friends and relatives feed their children unhealthy food and that they do not listen when she stated her opinions or requests that her children eat certain foods. She stated:

My friends and relatives eat junk all day long, chips and cookies and candy... I can't control it [what her child eats] when we are there. They don't listen to nobody. Their kids eat good when they are down here. We just don't go there much.

**Personal determination and willingness to ask for help.** Setting themselves

apart from an older generation, their own mothers, all of the young mothers who were raised in a low-income rural situation are making different decisions about raising their own children. Many of the mothers in this sample are not afraid to ask for help when they know that it is what is best for their children, stating that their own mothers felt that they did not deserve or need the government's help and instead at times let their children go without what these younger mothers felt was adequate food. One mother when asked how she deals with barriers in feeding her children simply stated, "I ask for help." Melinda, 22, made the following comment about not allowing her pride to get in the way of feeding her children:

Yeah, I still make sure that they have what they need, if money is tight then and I feel like I need to cut back I don't cut back their food. I am one that is not afraid to ask family for help, I am not, I don't hide, my pride is not over my kids eating healthy.

Donnetta, 33, and mother of one stated:

Just as long as we have shelter, clothing and food then we are alright – those are all important things for me... well, since losing my job it has been hard, but I recently got Food Stamps and that helped a lot, but when it is bad we will go to the food pantry if we need it, I will do whatever I have to get it for my family....most of the time they will give you something to make a meal out of so I don't complain, if my baby has something to eat.

Some of the mothers also struggled with needing to use programs such as Food Stamps and WIC, even though in the end many of them made the choice to participate to

feed their families. Janice, 28 and mother of three, was a good example of this inner struggle in the following dialogue with the researcher.

Researcher: Does money ever get in the way of providing good food for them?

Janice: It used to when I just had two kids. When I first stopped working and was pregnant with her, I was always worried that I wouldn't have enough money to last the whole month, and I have to make it stretch out the whole month, and so I decided I guess I will go back and get Food Stamps. I never really wanted to do that, but it helps a lot.

Researcher: So in a way it was an emotional decision almost for you?

Janice: Yeah it was. I always figured that I could provide for them without any help, and it is hard to think that I couldn't provide for them and thought it was because I was a bad mom.

## CHAPTER 4

### DISCUSSION

From the review of literature we know that there is still much to be learned about the knowledge, perceptions, motivations, barriers, and supports that rural, low-income mothers bring to bear in feeding their children. Simply knowing what nutritional information a group of mothers has does not give sufficient basis for understanding why they do what they do and does not provide adequate information on which to base intervention programs. The purpose of this qualitative study was to describe the knowledge, motivations, and perception of barriers that rural low-income mothers bring to bear on the feeding of their children.

Four main sets of issues were addressed by the current study: (1) what mothers want for their children and why, (2) how knowledge is put into action, (3) challenges and barriers, and (4) coping strategies. A key factor that emerged as influencing almost all of the answers that the mothers provided as they were interviewed was seeing life through the lenses of poverty. As stated in Chapter 1, the literature suggests that living in poverty provides unique barriers and stressors that mothers who have adequate financial means do not encounter. Jencks examined the poverty literature and stated:

To understand what is happening to those at the bottom of American society, we need to examine their problems one at a time, asking how each has changed and what has caused the change. Instead of assuming that the problems are closely linked to one another, we need to treat their interrelationships as a matter for

empirical investigation. When we do that, the relationships are seldom as strong as our class stereotypes would have led us to expect. (1991, p. 97)

This chapter will examine the current findings in view of the role that poverty, specifically rural poverty, plays in mothers' knowledge, motivations, behaviors, and personal biases as they relate to feeding their young children.

### **Poverty and Rural Life**

The current findings should be viewed in light of two types of poverty - situational and intergenerational poverty. For this discussion, intergenerational poverty is defined as the condition of having grown up in poverty and continuing to live in poverty in adulthood so that one must raise one's own children in poverty. In contrast, situational poverty involves being in poverty temporarily because of a lack of resources to deal with a particular situation or event such as a death, divorce, loss of employment, etc.

Musick and Mare (2006) examined 20 years of data from individuals living in poverty with the intent of understanding if childhood poverty or current family structure better predicts the likelihood of continuing to live in poverty. They found that the intergenerational transmission of poverty is a significantly stronger predictor of current poverty than family structure (single parenthood). Children who grow up in poverty are 3.5 more times more likely to be poor as adults than children who are not raised in poverty (Musick & Mare, 2006).

In the current study many of the women live in chronic poverty as defined above and many alluded to childhood poverty through direct comments and statements about being poor as a child, as well as, through comments about learning to improvise meal ideas and eating food they considered low-income such as hamburger meat, deer and other game animals. For example, Kameron, 30, stated, "My mom never took Food

Stamps, she was a single mom out in the country and she felt that Food Stamps and things like that were for people that were really poor and really needed it and her mind we weren't those people, but we really were.”

Situational poverty was less common among the women in the study; yet a few had encountered times of financial security. It seemed that for these women, it was even harder to cope with being financially unstable now. For those that have experienced financial stability for a period of time and then experience or re-experience poverty (situational or chronic), the uncertainty, stress, and strain accompanied by financial instability may present more feelings of failure, despair, frustration and confusion than if they had lived in poverty day to day without every knowing anything different.

The current study suggests that poverty presents unique barriers to mothers in feeding young children. The women made infrequent trips (generally one large shopping trip each month) to grocery stores because of limited funds and thus were able to provide less fresh food to their young children. The women also experienced food insecurity towards the end of the month when their Food Stamps money had run out and they had no other means to purchase food for their families. Lastly, because of lack of funds and infrequent shopping, throughout the month the mothers often could not provide healthy foods that their children wanted. This inability to provide resulted in frustration and disappointment in themselves.

As indicated in Chapter 1, living in a rural area provides additional, unique, challenges which are different than those experienced by people living in urban areas. The women interviewed for this study all lived in rural counties, yet some decidedly lived in more rural areas than others. Each woman was asked where the closest grocery store

was and about the variety offered at those stores. The more rural the area in which the women lived, the less access there was to grocery stores, though all reported having a store, which generally was Wal-Mart, within a 30 minute car ride of home. In keeping with the literature (Johnson, Gutherie, Smiciklas-Wright, & Wang, 1994), these women experienced greater barriers than urban women to providing nutritious foods throughout the month because they typically make just one large trip into "town" to buy the items needed, thus decreasing the volume of fresh foods available throughout the month. An interview with a mother who had recently moved from a more urban area suggests that this lack of variety may be more troubling for those who were used to the greater options of urban stores than for those who grew up in rural areas with little variety and option.

The intersection of rural living and poverty was shown in mothers' comments about the stores in which they shopped. Those women who lived within a 10 mile radius of Columbia had many stores to choose from, but even they almost all claimed Wal-Mart as the store that they shopped at the most. When asked if they were pleased with the options, variety, and quality of food at Wal-Mart, most admitted that they were not, but Wal-Mart was where the money they had would go the furthest so that is where they shopped. It seems that for these rural low-income women, giving up quality for quantity was the most important part of "making do" in shopping for food. Throughout the interviews many of the mothers commented that it was most important if the child(ren) were full and that healthy meals came second to that. The mothers also were greatly concerned about having their food monies last the entire month, thus being able to provide healthy meals to their children. These concerns and barriers seem to be the

catalyst for shopping at stores like Wal-Mart where they can get the most for the least amount of money.

Racial patterns also played a role in the feeding and eating patterns of the mothers and children in the study. Compared to the Caucasian mothers, the African American mothers in the study had stronger ties to family and generally lived within closer proximity to them. Probably for these reasons, they seemed to rely more heavily on their mothers, aunts, and sisters, eating meals together by pooling what was left in their pantries at the end of the month in order to get everyone fed. As a likely consequence of cooking together, many of the African American mothers often prepared meals more like their mothers and had greater chance of being influenced by "family and community" attitudes and ideas than the Caucasian mothers who lived farther away or relied less on family for meals. Additionally, the African American mothers care to show respect to their own mothers seemed to lead them to occasionally acquiesce to eating less healthy meals than they would have liked (e.g., fried rather than baked foods). It is important to acknowledge and support cultural traditions, so mothers should not be pressured to abandon their families' cooking traditions completely.

As indicated in Chapter 1, the literature suggests that low-income women show high rates of obesity, creating a risk of the same problem for their children (Hoerr, Hordodyski, Lee, & Henry, 2006; Townsend, 2006; Veuglers, Fritzgerald, & Johnston, 2005; Williams, et al., 2005); further, research suggests that rural residents experience higher rates of obesity and overweight (20.4%) than people living in urban areas (17.8%); even with education and age held equal, rural adults and children of every racial/ethnic group are at higher risk for obesity (Patterson, Moore, Probst, & Shinogle, 2004). While

this study did not collect mothers' body mass index (BMI), only four of the mothers appeared to be overweight or obese and none of the children appeared such. Since obesity is a large health problem in the United States today and has been given much attention in the past few years, it is possible that these mothers are more aware of the consequences of obesity (as illustrated in the results section) and are more vigilant about healthy eating and feeding behaviors than the literature has seen in the past. Further research on if the recent push for healthier lifestyles (locally and federally) has changed the attitudes and motivations of rural, low-income mothers in what they eat and what they are feeding their children is needed.

### **Mothers' Motivations Related to Feeding**

A major finding of the current study was that the mothers very much wanted to do what is best for their children. From the interviews it was clear that mothers wanted their children to have good health and avoid common health concerns such as diabetes, obesity, and cancer. They believed that to meet these goals, they should provide nutritious foods. Previous studies have not emphasized enough how much low-income rural women want to feed their children well.

Other studies do, however, provide evidence of low-income women's desires to do what is best for their children generally. In Ispa, Thornburg, and Fine's book *Keepin' On* (2006), Andreyia, a 18-year-old mother, talks of wanting the best environment for her son, providing all of the material possessions she feels make for a happy childhood (clothing, toys, parties, etc.) and ample attention from herself, family, and friends. Seccombe, et al. (1998) reported similar findings in their interviews with "welfare" mothers. The mothers wanted to provide the best material possessions that they could, dress their children in nice clothing, and try and pass themselves off for middle class

individuals. Such examples of young mothers wanting what they see is best for their children in terms of items that could be purchased was also evident even in the short time I was interviewing the mothers in my sample. The mothers in my study would point to snacks, foods, toys, clothing, and show me the children's rooms and playrooms during and after the interviews. This seemed to indicate a need and desire to show that they were indeed doing all they could to provide a happy and healthy environment for their children to grow, including good healthy foods, material possessions, and attention. This idea is also supported in the work of Ispa and Halgunseth (2006), who found that for the low-income mothers in their study, wanting what was best for their children was evidenced in statements about being more responsible, serving as role models for their children, sacrificing personal material possessions to provide the best for their children, and in general caring deeply about the welfare and needs of their children.

Adding to the desire to provide their children with material possessions is the idea of hope spoken of by the mothers in the current study. The mothers indicated that they hoped that by making sacrifices for their children, putting their children's needs above their own, and taking care to provide them with healthy meals, they were giving their children the foundation for better and healthier lives than they currently live.

Interestingly, no mother ever mentioned wanting their children to have more money or better jobs, just healthier and happier lives, often coupled with the children being free of chronic diseases experienced by family members. Allen's (2008) research on low-income co-habitating parenting couples also found hope to be a main theme in the couple's lives, they had hope for a better future for their children and themselves and hope that through hard work their children could have better lives (Allen, 2008). Allen's study

supports the idea that low-income parents are working to provide their children with a better future.

### **Influences of Family and Community**

Rural, low-income mothers' eating patterns and feeding practices were examined in reference to the influences of family and community. Kruger and Gericke (2003) found that community and family cultural messages had a powerful influence on feeding practices and eating patterns and that the rural low-income young mothers in their sample found it very difficult, if not impossible, to ignore the suggestions and ideas of their ill-informed family members and peers. They tended to stick to and embrace the ideas of and ways of feeding their children that their mothers and the community "supplied" and disregarded those of doctors, WIC, and other health professionals.

This pattern was not evident in the current sample of mothers, who appeared to be able, independent, and strong willed and may be more resistant to the influences of peers and family members than mothers in other researchers' samples. The mothers commented on disconnects between the messages received from WIC educators and their children's pediatricians and the advice or pressure provided by family, friends and their rural communities. They made direct comments about how unhealthily their family and friends ate and how poorly they fed their children. This seems to indicate that the mothers felt that their decisions about feeding their children were wiser in terms of health, that they were more conscious of the food choices being made, and that their families and friends were not making those same efforts. Similarly, Seccombe, James and Walters (1998) found that "welfare" mothers were often critical of other mothers' decisions to collect aide and for the choices that they made in rearing their children, excluding themselves as not vulnerable to the mistakes or attitudes that they were criticizing.

In this study, the mothers seemed very independent and confident that they could embrace the ideas that they were taught and that no one was going to tell them how to raise their children. (Several mothers stated directly that this was their child(ren) and no one would tell them how to raise them.) It seems that the mothers were very proud of the choices that they were making in feeding their children and if they came across as independent or unteachable, it was a result of their pride in their efforts to do what was best for their children. This attitude of independence is also seen in interviews with young low-income African American mothers in the book *Keepin' On* (Ispa, Thornburg, and Fine, 2006), in which those young mothers felt that they knew better than their own mothers. Ispa et al. attributed these attitudes partially to the mothers' youth and naivety. However, the women in the current study were on average 25 years old and 75% reported having had some college, leading me to think that these women have had life experiences and education that have led them to have the strong opinions they hold. It must be kept in mind, however, that the educational level of the mothers, as reported above, is not representative of the (lower) educational levels of the rural low-income population of Missouri.

### **Media Influences**

During my time in the women's homes for the interview, the mothers often would show me the foods in their pantries, pointing out the Gerber foods and snacks that they felt were a good indicator of their efforts to provide good foods for their young children. When asked about the Gerber foods, many of the mothers said that the commercials had indicated that these were the best foods for feeding their young children and they wanted what was best for them. To my knowledge, no research has been completed on the marketing influence of advertisements for products like Gerber foods on mothers

(regardless of income), a gap in the literature that needs to be filled. A few mothers talked about the power of the media in influencing what their children wanted to eat, such as Dora yogurt and Mickey cheese. According to Stoneman and Brody (1982) television commercials aimed at children are powerful, having an impact on children's attempts to influence their mothers' decisions about foods to buy. Additionally, Story and French (2004) examined the food advertising and marketing channels used to target children in the United States and the impact of food advertising on eating behavior. They found that the largest single source of media messages about food to children, especially younger children, is television and that the commercials have a great impact on what the children ask for or attempt to have their parents buy at the grocery store. This supports the comments made by the mothers in the study on how their children asked for certain foods because of the commercials seen on television. The results of this study and the work of Stoneman and Brody (1992) suggest that media influence is something that mothers in general experience and is not specific to rural low-income mothers.

### **Mothers Nutritional Knowledge**

Nutritional health can be viewed as a pathway through which poverty influences other child outcomes (Brooks-Gunn & Duncan, 1997; Slack & Yoo, 2005).

Unfortunately, research suggests that large numbers of low-income adults do not possess specific dietary knowledge about the consequences of a poor diet (Gleason, et al., 2000).

Consequently, children who are living in poverty are particularly likely to be poorly nourished (Devaney, Ellwood, & Love, 1997). In the current study, I found that even though my sample had a higher educational level than the population at large, the rural low-income mothers I interviewed still lacked sufficient nutritional knowledge to give their children a steady, healthful diet. As previously stated, maternal education is a

predictor of positive feeding habits by mothers of young children (Conrad, Gross, Fogg, & Ruchala, 1992). The deficits I saw in nutritional knowledge and feeding practices may actually be greater in the general rural low-income population. (Recall that my sample was somewhat more educated than is typical among rural Missourians.)

Social desirability is an issue in most, if not all, qualitative studies. In the current study, after asking about their nutritional knowledge in regards to young children, I received mixed reactions. Some of the mothers felt that they had ample knowledge as provided by WIC, physicians, and family members, yet when asked about specific concepts like portion sizes or what makes a healthy meal, many of the mothers struggled to know what the “right” answer was. Many of the mothers would state what seemed like ‘canned’ answers about nutrition knowledge, such as “that is what the food pyramid suggests” or “they have to get foods from all the food groups.” In addition, it seemed that some of the mothers overestimated their actual knowledge. A mother might claim that she understood portion sizes for a 2-year-old, but when asked how much a portion size of meat for that child would be, the mother would stammer and ultimately admit she was unsure or make a statement like “the same size as their fist.”

Three main federal programs that are often used by rural, low-income mothers emerged as influencing the mothers' knowledge and the ways they coped with the barriers they experienced in feeding their children. These three include (1) Women Infants and Children (WIC) (2) Supplemental Nutrition Assistance Program (SNAP); (3) and Temporary Assistance to Needy Families (TANF) and the education the women received in connection with that legislation change.

**Knowledge gained from Women Infants and Children (WIC).** Twelve of the

16 women in the study participated in the WIC program in the state of Missouri. The four that did not participate all qualified but had opted to not take advantage of the program. Reasons for this decision included the appointments being inconvenient, feeling judged and demeaned by the WIC staff, and missing too many appointments and being disqualified because of attendance. The income guidelines for this program indicate that the family must be living at or below 185% of the federal poverty line in order to qualify. The program provides the following benefits for their participants: 1) supplemental nutritious foods; 2) nutrition education and counseling at WIC clinics; and 3) screening and referrals to other health, welfare and social services (USDAa, 2009). The goal of WIC is to improve the nutritional health of participants. This is accomplished by providing nutrition education, breastfeeding promotion and support, medical care referrals and nutritious foods that are high in protein and iron. (USDAa, 2009). In the current study, participants often commented on their lack of understanding about basic nutrition, portion sizes, the food pyramid, and other nutritional information. Several women even commented that they no longer receive the educational component of the program except for a folder to flip through while they waited at the WIC office for their check to be processed. Another concern for these women with WIC was the feeling of being judged as a poor or incompetent mother while being screened by the WIC personnel. This was especially true if their child was large or small for their age.

A qualitative research study conducting focus groups with low-income rural mothers using WIC services similarly found that the mothers lacked basic nutritional knowledge and understanding of child eating behaviors (Chamberlin, Sherman, Jain, Powers, & Whitaker, 2002). Together with the results of the current study, this indicates

that further research needs to be conducted on the WIC program and its effectiveness in delivery of its intended messages. Given that mothers in the present study felt judged while participating in the program, additional sensitivity training appears to be needed for WIC employees. Additionally, while many programs have seen recent cuts to their budgets (as has WIC), the nutritional education it once provided was an essential component that set it apart from others like it (e.g. Food Stamps). It is also important for WIC to find more effective ways to provide the message and education that they are trying to share with the mothers. This study and that by Chamberlin, et al. (2002) suggest that this message is not being fully embraced or captured by the mothers.

**Knowledge gained from Food Stamps Program.** The Food Stamps program was used by 12 of the 16 women interviewed in the current study. The Food Stamps program is a federally subsidized program that is designed to promote the general welfare and safeguard the health and well-being of the nation's population by raising the levels of nutrition among low-income households (USDAb, 2009). There are federally set guidelines on household income and assets that determine eligibility. Individuals have an initial interview which determines financial eligibility and then every 6 months a financial statement is requested. The monies available to the family, such as savings, or assets (e.g. a car) are calculated into the equation for continued eligibility. The monies provided are given to the individual in a form of a debit card to be used anywhere that Electronic Benefits Transfer (EBT) are accepted. There are very few restrictions on what can be purchased with the money, though alcohol, tobacco, already processed foods (such as fast food) and diapers (USDAb, 2009) may not be purchased with food stamp funds.

According to the USDA website, under current regulations (7 CFR 272.2 (d)), State food stamp agencies have the *option* to provide nutrition education for persons who are eligible for the program (USDA, 2009). The goal of this Food Stamp Nutrition Education (FSNE) is to improve the likelihood that persons eligible for the FSP will make healthy food choices within a limited budget. In the State of Missouri, the University Extension Program runs the FSNE portion, but unlike WIC, SNAP does not tie the educational component to receipt of the monthly Food Stamp monies. The mothers in the current study never mentioned receiving nutritional education through either the Food Stamps program or the Extension program run by the University of Missouri.

Several of the women in the current study said that they would receive the money (on their designated day) and then go to the store and buy a large amount of food, often many snacks, frozen, and canned foods. Though many of the mothers felt that they could, with aid from the Food Stamps program provide nutritious foods for their children, without knowledge about how to manage the funds provided, they often ran out of food stamp monies before the month was complete. They would then rely on family, the food bank, or other charitable organizations in order to feed their families. Throughout the interviews I heard mothers make comments about not knowing how to budget, never being taught or taking advantage of classes and not knowing how to plan a meal. It is difficult for many low-income individuals to engage in long-term planning and budgeting because of the changing nature of their lives, the often fluctuating income they experience, the cliff effect (spoken of below), and their inexperience and lack of training with budgeting and planning.

Also, many of the mothers seem to have a complete disconnect between their own money (earned by working, TANF, etc.) and the monies they received from Food Stamps and WIC. It seems that they do not think of using their own money to supplement Food Stamps in order to buy sufficient quantities or quality of food. By providing an educational component to the Food Stamps program, both rural and urban low-income mothers would be provided the skills and knowledge they need to budget their food stamp money and succeed in purchasing food on a budget once they no longer qualify for Food Stamps.

**Knowledge gained from Temporary Assistance to Needy Families (TANF).** In 1997, President Bill Clinton signed into law P.L. 104-130. This law replaced Aid to Families with Dependent Children (AFDC, aka - welfare) with the new program called Temporary Assistance to Needy Families. Under this new law, many things changed for those receiving AFDC or what most referred to as simply as "welfare." With this new piece of legislation, individuals could receive the monies for a maximum of 5 years in their entire lifetime. Additionally, most adults were required to begin working within 2 years of receiving the monies or needed to be attending school (vocational, college, etc.) if not working. Thus, the federal welfare program was reformed and low-income individuals' ability to access welfare funds was drastically changed. These changes in welfare have had an impact on the low-income community, both rural and urban. Individuals now are required to pursue education; this seems to be illustrated in the sample demographics of this study. Of the 16 women in the study, only one has less than a high school diploma, and 11 have some college.

The literature suggests that a mother with more education has greater understanding of nutrition and what her child needs. Additionally, the more maternal knowledge, positive attitudes, and motivation about nutrition and health, the better the child's diet (Blaylock, Variyam, & Lin, 1999). It seems that the educational level of the mothers may be a factor that helps to explain differences between my respondents' thoughts and behaviors and those reported by other researchers. Additionally, the recruitment approach used for the current study may have resulted in a sample with higher education and understanding of nutritional needs of young children than is typical in other low-income research samples. Over half of the women were recruited through using the Baby Beep Maternal and Child Health Recruitment Database. Most of the women in this database participated in an almost 3-year intervention study which provided educational materials and visits with nurses to perform baby assessments. These visits and materials may have impacted the women in their understanding of and desire to learn more about how to best feed their babies and young children, which would have had an impact on the answers that the women provided about nutrition, motivation, barriers and coping.

### **The Cliff Effect**

As reported in Chapter 3, there was a subset of women in the study that did not qualify for the Food Stamps program and consequently struggled even more financially than the other women in the study. These low-income mothers spoke of the difficulty of getting through the month and providing healthy food for their children because of the very tight financial situation they found themselves in. These mothers' incomes just barely exceeded the cut-off for eligibility for programs such as public housing, Food Stamps and child care subsidies. Prenovost and Youngblood (2010) conducted a

qualitative study examining the effects of individuals becoming ineligible for federal programs. They found that individuals doing the best in the workplace were suffering the most financially because of the loss of benefits due to increased income (i.e., Food Stamps, Child Care Subsidies, Public Housing, Medicaid). In the Prenovost and Youngblood article, Alicia, a 35- year-old mother of three, stated that after receiving a raise at her job and no longer being eligible for federal programs, “Everyday there is a chokehold around me, you know, where sometimes it’s really hard to breathe ... Because most days you feel this consistent choke because there is always a bill that needs to be paid” (2010, p.10). The cliff effect spoken of in Prenovost and Youngblood article is clearly illustrated in the lives of the four women in the current study who also are ineligible for Food Stamps and other programs. They also spoke of financial struggles that accompanied making more money but having fewer resources to actually work with. For these families, shopping for food was done “when we have money” as one mother stated making it hard to provide healthy meals to their families throughout the month. These families struggled especially during the winter months because of the cost of fuel to heat their homes. Further research examining the Cliff Effect on rural, low-income families is needed to better understand how to help the affected families.

### **Challenges Related to Typical Child Behaviors**

For the women in this study, the barriers perceived in feeding their young children fell into two main categories (1) challenges dealing directly with getting the child to eat (pickiness, inability to focus on food, meal planning, etc.) and (2) money challenges. The child behavioral challenges of these mothers were often more focused on typical young child behaviors while eating. Such behaviors have been the focus of much research in the past. Birch and associates have done extensive research on children's feeding behaviors

(infant through adolescent); their studies have focused particularly on the development of food preferences (willingness to try new foods, pickiness, etc.) and problems of energy balance such as obesity, dieting, food controlling strategies, and disordered eating (Birch, 1981; Birch, McPhee, Shoba, Pirok, & Steinberg, 1987; Birch, Zimmerman, & Hind, 1980; Fisher & Birch, 1999; Francis, Ventura, Marini, & Birch, 2007; Galloway, Fiorito, Francis, & Birch, 2006; Orlet-Fisher, Rolls, & Birch, 2003). The mothers in the current study also struggled with getting their children to try new foods, pickiness, and being very social while eating. These very real barriers are well documented in the literature and a frustration for many mothers of young children.

### **Implications of the Current Research for Practice**

As stated previously, the sample in this study is not truly representative of the poor, rural population of Missouri in that the mothers were somewhat more educated than is typical. Still, there are several recommendations for practice and policy that flow from the results. First, it is important to look at the effectiveness of prevention programs that are aimed at this population. Judging by the mothers' lack of knowledge exhibited in the current study, for future studies and program it will be important to teach rural, low-income mothers to effectively use the resources that are at their disposal such as WIC, Food Stamps, and Head Start. WIC and Food Stamps programs should aim prevention classes at teaching the mothers about portion sizes, healthy recipes, budgeting, shopping skills, menu planning, and tips for dealing with picky eaters. Basic information about nutritional needs (e.g., information about the food pyramid) is not sufficient. The Head Start program currently provides both parent and child educational curricula about nutrition. In order to help parents understand how to best feed their children, it would be

helpful to have classes and curriculum that combine the two age-groups and help parents understand what the child is being taught. That way those ideas could be reinforced.

Secondly, tool kits that are for Food Stamp and WIC personnel should be designed to help address ways to overcome community and family pressures or ideas. Third, WIC staff should do more to address rural, low-income women's perceptions that they are being treated poorly during appointments and other interactions. This can be accomplished by creating a positive/sensitivity group training program that allows the entire office to work together and learn positive interaction skills and avoid concentrating on deficits. Finally, it is important to advocate for this population by writing policy notes that educate local, state, and federal senators and representatives on the needs of this specific population, the need for these programs, and any deficits in the delivery or accountability of the programs. Specifically, these policy notes should address: (a) the need for this population to receive budgeting education and help; (b) the unique challenges faced by rural low-income families when feeding their young children; (c) recommendations that the Food Stamp monies need to be dispersed twice monthly in order to help families stretch their allotments throughout the entire month; (d) the need for more support for and advertisement by the nutrition education program (associated with Food Stamps) run through the University of Missouri Extension; and (e) the problems associated with a one-size all approach to Food Stamp money disbursement (providing the same allotment of funds whether the household is made of three teens and two adults or three young children and two adults).

### **Suggestions for Future Research**

Understanding the knowledge, behaviors, motivation, and barriers of rural low-income mothers of young children is necessary in order to effectively develop nutrition

prevention and intervention programs for this population (Patterson, Moore, Probst, & Shinogle, 2004). The results of the current study indicate that to develop this understanding, there is a need for future research in a number of areas.

Many of the mothers in the study struggled openly with knowing how to meal plan, shop and budget the money that they were given through the Food Stamps program leading them to rely on family and friends towards the end of the month. Additional research needs to be conducted on how individuals spend their allotted food stamp money. It will be important to understand what individuals buy with Food Stamps, where they are shopping, what meals they are making with the foods they buy, and how or if they are budgeting. This research will allow for the development of specific education interventions/programs aimed at using the food stamp program more effectively. It can also serve as a way in which to understand the best way to incorporate an educational component into the food stamp program or how these individuals can be held accountable for the money that they are given.

The current study found that the rural, low-income mothers lacked understanding about basic nutritional knowledge. Twelve of the 16 woman participated in the WIC program, which has an educational component aimed at teaching basic nutritional knowledge and guidelines to mothers. The lack of understanding by the women in this study thus indicates a need to evaluate the effectiveness of WIC's current educational component. Future research should evaluate the WIC program, specifically determining which aspects of the program work well and which need to be changed. Research looking at relationships between WIC personnel and parents is also needed.

As has been discussed throughout this dissertation, rural, low-income women often experience unique barriers and challenges to everyday living. In this study I found that moms struggled with a variety of conditions that contributed to the struggles in their lives. These included, but were not limited to, having few choices in adequate grocery stores, food variety; their financial situations (living in chronic or situational poverty) created more daily hassles, increased stress, frustration and sometimes feelings of despair. Yet, these women were mostly thriving and doing the best they could for their children, hoping that their children would have a better life. Future research is needed to look at how specifically these women who live in these situations are able to cope with their everyday challenges and how they overcome the unique barriers of their lives. This will provide the information needed to provide a variety of intervention programs for the population and will provide a needed look into the lives of this population.

Often during the study the mothers commented that they had little idea of how much their children were eating, sometimes what they should be eating, and were confused about food guidelines and other basic nutritional knowledge as stated previously. Future research that examines the amount that rural, low-income children are eating, what they are eating, what they are willing to eat, how much variety is offered, and the amount of physical exercise obtained daily is needed in helping us understand the rising obesity rate among this population. This research could lead to specific diet and exercise intervention programs for this population in order to help children develop health eating and exercise habits at a young age.

The media and its influences on how mothers feed their children came up many times while interviewing the mothers for the study. As discussed earlier, many mothers

felt that because of commercials claiming Gerber to be best for their baby, that is what they would feed them. After an extensive search of the literature, I have found no studies that have looked at the influence that these commercial have on mothers' use of Gerber baby and toddler food products. The women in this study seemed to feel pressure to follow Gerber's "advice" to feed their children these foods so that their children would be healthy and happy. Research is needed to examine this influence on mothers.

Parents are their children's role models in almost every aspect of life as they grow up and in healthy eating habits it is no different. Many of the mothers in the current study understand the importance of the examples set by them and others (father, grandparents, extended family, etc.) in the development of children's eating habits from a young age. While research has been conducted on the importance of modeling healthy eating, additional research specifically aimed at how this modeling is taking place needs to be conducted. Additionally, it is important that research be conducted on the importance that mothers (by race, ethnicity, socio-economic group, etc.) place on their role and that we learn how children are responding (are the behaviors being mimicked, healthy or unhealthy habits adopted, etc.). This research could be used to develop preventive programs for all groups that are studied and would add greatly to the nutritional literature.

### **Limitations**

Limitations of the study include a small sample size and the convenience sampling technique used to recruit rural low-income mothers into the study. The participants were not selected randomly; this study used selective sampling in order to get the sample that would best fit the qualitative study's purposes. Additionally, the number of participants ( $n = 16$ ) is small and somewhat more educated than the overall Missouri rural poor population and thus the findings can not be generalized to the general

population of low-income rural mothers in that state. As indicated earlier, half of the woman in the study were recruited from the Baby Beep Maternal and Child Health Recruitment Database and had previously participated in an intervention program. This may have influenced the responses of the mothers by making them more aware of nutritional issues than their demographic counterparts who have not participated in such a program. It may also have led to social desirability bias (spoken of earlier in the chapter).

In addition, the geographic area in which the women were sampled was limited and some of the towns within it were more rural than others. Exclusion of adolescents, who may have less nutritional knowledge and fewer set beliefs, and exclusion of non-English speaking woman likely resulted in missed information about unique challenges and barriers that these young mothers face in their lives. Using only qualitative methods instead of a mixed methods approach limited the data received and the results in that I did not collect numeric data from a representative sample of the target audience. Future studies could include larger samples and statistical analyses to estimate to what extent opinions expressed by participants reflect the opinions of the population studied.

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## APPENDIX A

### INTERVIEW SCHEDULE

**Target Population:** Rural low-income mothers with young children (12m-59m)

**Objective:** To learn about the mental processes, biases, perceptions, motivation and barriers these mothers have in feeding their young children.

**Introduction:**

*In order to proceed with the interview, I need you to review a consent which is necessary for you to participate. (Hand over the consent for and give the subject a minute to review. Ask subject to sign and hang it back). Like we talked about before, this interview should take about an hour.*

*Before we begin I want to thank you for taking time to participate. Your ideas, thoughts and feelings are very valuable so please be as honest as possible during the interview.*

*During the interview I may look down at my notes and at the interview guide while you are talking but that does not mean I am not listening so when this happens just keep going with your line of thought and I will do my best to affirm that I hear you...*

*As you know we are going to be talking about how you feed your kids, we are going to start by talking about what you eat on a daily basis.*

**Knowledge**

I'm interested in knowing what you usually eat for each meal. Let's start with breakfast.

What are the reasons you choose those foods?

Probes: What do you usually have for lunch?

What are the reasons you choose those foods?

What do you usually have for dinner?

What are the reasons you choose those foods?

Do you and your family eat on a schedule each day? What is that schedule like?

In your opinion, what is a healthy meal [age of her children] for children?

Probe: What foods come to mind?

Do you feel that you have enough information about what a healthy meal is?

What, if anything, makes understanding healthy meals/foods confusing?

How do you decide on the meals that you prepare for your children?

Probe: How did you decide on those particular foods or meals?

Is serving certain foods important to you?

What makes those foods important?

Do you feel like you know how much your children are eating?

Do you have information on what portion sizes they should be eating?

How many snacks do your children eat each day?

Probe: What kinds of foods do they eat for snacks?

How much do they eat?

Who decides what they are going to eat?

Do they eat snacks at certain times each day?

Where can mothers get information about feeding their children?

Probe: Where have you found your information? Do you agree with it? Was it useful?

Is there anything else you wish you knew more about?  
 Are resources you know of adequate for your needs?  
 What additional resources do you think are needed?  
 Does your extended family contribute to your knowledge and habits in feeding your kids?  
 Probe: Do you feed your children similar to how you were fed as a child?  
 Do you feel any pressure to follow the advice given by your family?

### **Motivation**

Tell me about what influences you to provide healthy meals.  
 Probe: Where does that influence come from / stem from (how you were raised, personal conviction, etc.)?  
 Do you feel social pressure from anyone to feed your children certain things?  
 Does your conviction stay the same or change with circumstances (being really busy, inadequate money to buy food, etc.)?  
 Are there other things in your life that more important than providing healthy meals to your children?  
 Probe: What are those things?  
 What makes them more important?  
 When you think a meal has been successful, why is that?  
 Probe: Does success in a meal pertain to the food served or the context of the meal? Does whether the children liked it make a difference?  
 What does that meal consist of?  
 What do you do when your child doesn't want to eat what is prepared?  
 Do you have an idea of how much they are eating?

### **Barriers**

What are some of the challenges you encounter in feeding your children?  
 Probe: Tell me more about those challenges.  
 Tell about how your kids react to the way you feed them?  
 How do you respond to your children's reactions to what you feed them?  
 Do you feel like you can provide healthy meals to your children?  
 Probe: Are there any / What are the barriers in doing so?  
 How do those barriers affect your ability to provide healthy meals?  
 Do you have any worries about providing healthy meals to your children?  
 Probe: What are those worries?  
 Where do you find help/information for them?  
 Are there times when it is harder to provide healthy meals than at other times?  
 Probe: What makes those times harder than others?  
 What would aide you in providing healthy meals to your children during those times?  
 How do you overcome the barriers you have to providing healthy meals to your children?  
 Probe: Do you feel like you have what you need to overcome these barriers?  
 Do you feel you have social support in providing healthy meals to you children?  
 What resources are available to low-income rural mothers in feeding their children?  
 Probe: How do you access your food?  
 What resources are needed?

**APPENDIX B**

**MOTHER DEMOGRAPHIC QUESTIONNAIRE**

Please circle the correct answer for the following questions:

1. Which age group do you belong to?
  - A. 17-21 years
  - B. 22-25 years
  - C. 26-29 years
  - D. 30-33 years
  - E. 33 years or more
2. How old were you when you had your first child? \_\_\_\_\_
3. Which of these best describes your race or ethnic group?
  - A. White
  - B. African-American
  - C. Hispanic
  - D. Native American
  - E. Asian
  - F. Other
4. What is your current legal marital status?
  - A. Currently married
  - B. Single; never married
  - C. Separated
  - D. Divorced
  - E. Widowed
5. Which of the following best describes your employment status?
  - A. Employed full-time
  - B. Employed part-time
  - C. Unemployed, looking for work
  - D. Unemployed, not looking for work
  - E. Homemaker
  - F. Student
  - G. Disabled
6. Which best describes your highest education level?
  - A. Less than High School diploma
  - B. High School Diploma or GED
  - C. Vocational Training
  - D. Some College
  - E. Bachelor's Degree
  - F. Master's Degree
7. How many members are in your household? \_\_\_\_\_

Please fill out the following information on all individuals living at your home at the present time.

Household Member	Relationship to You	Age
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1	Respondent	
2		
3		
4		
5		
6		
7		

8. Do you currently participate in any of the following programs? Circle all that apply.

- A. Food Stamps
- B. WIC
- C. Medicaid
- D. CHIP
- E. Section 8 Housing
- F. Disability
- G. Unemployment
- H. SSI
- I. TANF

## VITA

Katharine Ball was born in Oklahoma. Her family moved many times during her childhood and she visited many places throughout the world with them. She moved to Utah in 1994 to pursue her Bachelor's degree in Child Development. Subsequent moves sent her to Michigan, Texas, Connecticut, and Missouri. She earned her Masters at the University of Connecticut in Child Development. She earned a second Masters in Public Health from the University of Missouri. Her doctoral studies at the University of Missouri centered on child development, nutrition, statistics, public health and research.

Because of experiences traveling and living in very impoverished areas of the world and research opportunities throughout her education she developed a great love for the underserved and impoverished people of the world. Her research concentrates on those populations and application of intervention and prevention programs.