

NUTRITION-RELATED PRACTICES AND ATTITUDES OF KANSAS  
SKIPPED-GENERATION CAREGIVERS AND THEIR GRANDCHILDREN

by

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## Abstract

**Purpose:** The population of skipped-generation households is increasing both nationally and in Kansas. This qualitative study explored the nutrition-related practices and attitudes of Kansas older skipped-generation caregivers and the children under their care.

**Design and Methods:** Twenty-three Kansas caregivers representing 19 households were interviewed using a semi-structured approach. The interviewer asked questions from five categories: participant background information; nutrition-related attitudes; nutrition education experiences; nutrition-related practices including children's eating and physical activity, and food safety; and perceived usefulness of future population-specific nutrition education materials. Interviews were recorded on audiotape and transcribed verbatim. Transcribed quotes were sorted categorically according to the researchers' primary questions and additional emerging categories. The categorized quotes were then coded. Pattern recognition and repetition were used to identify themes.

**Results:** Nutrition-related practices and attitudes changed over time. Compared to when they were parenting the first time, skipped-generation caregivers reported that they are more nutrition and food safety conscious. Their grandchildren appeared to be adversely affected by an on-the-go lifestyle and the use of more electronics. Caregivers have shifted their parenting style. Their sources of child feeding advice are based mostly on tradition. Caregivers believed that nutrition and safe food handling are important; they held beliefs that nutritious food is expensive; and most did not believe they would use population-specific nutrition education materials. Additional findings detailed the caregivers' descriptions of the children, their advice to other caregivers, the challenges and advantages of caregiving, and the children's diets and physical and nutrition-related leisure activities. The preferred distribution of nutrition education materials was through grandparent support groups.

**Implications:** Research was exploratory in nature with a limited sample size. This population could benefit from education incorporating topics on infant, child, adolescent, and sports nutrition; healthful recipes and snack ideas; quick and inexpensive healthful meals that are low in fat, sugar, and salt; healthful fast food and packaged food options; the importance of

checking the internal temperatures of meat when cooking; ways to feed “picky eaters;” benefits of eating together as a family; tips to limit children’s sedentary time; and intergenerational gardening and cooking.

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## **CHAPTER 1 - Introduction**

The proportion of children being raised by their grandparents or another older adult relative is increasing in the United States (U.S.). This group has grown enough to find its way into the U.S. Census; 2000 was the first year to ask specific questions on grandparent care giving. According to the U.S. Census Bureau's 2005 American Community Survey (ACS), 2,458,806 adults ages 30 years and over are considered "grandparent caregivers," a group defined by the Census as "people who had primary responsibility for their coresident grandchildren younger than 18" (U.S. Census Bureau, 2006). These recent ACS data show a two percent increase from the 2000 Census data.

Since 1990, the number of Kansan children who reside in a grandparent-headed household has increased 13% more than the national average, which reflects the increase in Kansan grandparent caregivers (McDonald & Brook, 2004). According to the 2005 ACS, approximately 18,973 grandparents were responsible for their grandchild(ren) in Kansas. Of these, 35.5 percent were raising their grandchild(ren) without either of the child(ren)'s parents present in the household (U.S. Census Bureau, 2006).

Along with the increasing prevalence of grandparent caregivers is an increasing amount of research specific to this population group. Although much research has been conducted in recent years about the emotional, financial, familial, psychological, and legal implications for these skipped-generation households, little research has been published concerning nutrition-related practices and attitudes of these older adults and the children in their care.

### **Statement of the Problem**

Unlike new parents who may actively seek current child feeding recommendations and advice from the healthcare community (Barton, 2001; Bernhardt & Felter, 2004), grandparents raising their grandchildren may believe they have adequate information since they have already raised a child(ren). Consequently, many grandparent caregivers may rely on old advice based on outdated research, not realizing that some nutrition-related recommendations have remained constant over time, while others have changed dramatically. Nutrition education materials tailored to skipped generation households could help bridge the gap between past knowledge and

practices and current recommendations. Knowledge of the nutrition-related practices and attitudes of this target group could lay the foundation for educational material development.

### **Research Question**

What are the nutrition-related practices and attitudes of Kansas older adult grandparents or other skipped-generation caregivers and the children under their care?

### **Purpose**

This study used a qualitative approach to answer the research question. By examining topics such as food selection, physical activity, and food safety, this study will lay a foundation for developing nutrition and wellness educational curricula specific to the needs of older adults raising their grandchildren. These resources could help grandparents feed the children in their care more appropriately, ultimately increasing the quality of life and overall health of the children in their care and making the task of parenting a second time a little less burdensome. By listening to this population, educators can also better understand how to communicate nutrition information to them more effectively.

### **Objectives**

Objectives for this study are as follows:

1. Assess current feeding and basic food safety practices and attitudes of older adults raising grandchildren
2. Assess physical activity level of grandchildren being raised by grandparents
3. Assess past participation in nutrition education by grandparents raising grandchildren as well as commonly used sources of nutrition advice
4. Determine nutrition-related educational needs of older adults who are raising grandchildren

## CHAPTER 2 - Review of Literature

### Prevalence & Characteristics of Grandparent Caregivers in the U.S.

According to the 2005 ACS, 1.5 percent of the population 30 years and older were classified as grandparent caregivers (U.S. Census Bureau, 2006). Of this 1.5 percent, 39 percent reported that neither of their grandchild(ren)'s parents was present.

Nationally, according to ACS 2005, 68 percent of grandparent caregivers were ages 30 to 59 years old, 64 percent were female, and 71 percent were married. A little over half (58 percent) of the grandparent caregivers were still in the workforce (U.S. Census Bureau, 2006). Grandparent caregivers were more likely than other national family households to have incomes below the poverty level, with 20 percent meeting this criterion.

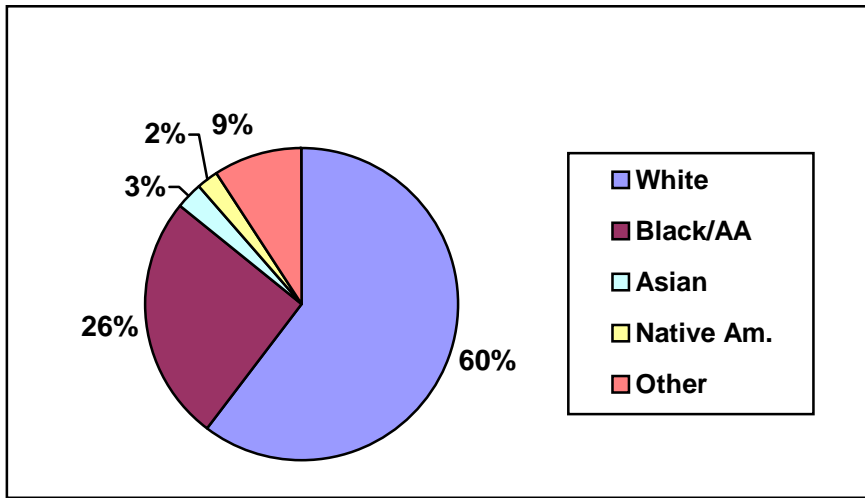
The majority (85 percent) of grandparent caregivers were between the ages of 40 to 69 years old (see Table 2.1) (U.S. Census Bureau, 2006).

**Table 2.1: Distribution of Grandparent Caregivers in U.S. by Age: 2000**

Age	Grandparent Caregivers
30 to 39 years	7%
40 to 49 years	29%
50 to 59 years	35%
60 to 69 years	21%
70 to 79 years	7%
80 years and older	1%

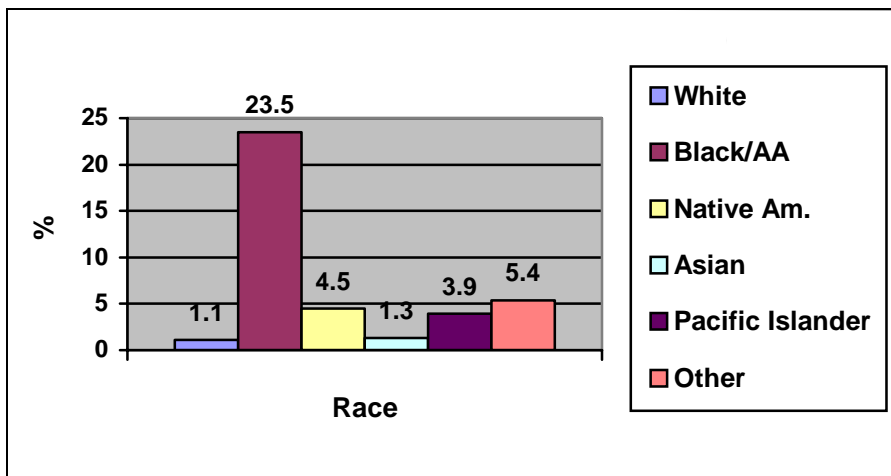
White and Black races make up the majority of these grandparents (60 percent and 26 percent, respectively, see Figure 2.1). These high percentages from the White and Black races are consistent with total population trends, since these races make up the bulk of the population in general (75 percent and 12 percent, respectively). Ethnically, 18 percent of these grandparents identified themselves as being of Hispanic or Latino origin (U.S. Census Bureau, 2006).

**Figure 2.1: U.S. Grandparent Caregivers by Race: 2005**



Inter-racial discrepancies exist regarding prevalence of grandparent caregivers. The most recent data for these discrepancies come from the 2000 U.S. Census (U.S. Census Bureau, 2006). In 2000, within racial groups, Blacks had a disproportionately high amount of grandparents who were caregivers (23.5 percent). The next highest group, Native Americans/Alaskan Natives, had a mere 4.5 percent. The White racial group, which includes Hispanics and non-Hispanics, had a disproportionately low percentage of grandparents who were caregivers. This group had the lowest percentage of the major racial groups, with only 1.1 percent (see Figure 2.2).

**Figure 2.2: U.S. Grandparent Caregivers within each Race: 2000**



ACS data from 2005 suggest that many grandparent caregivers are often more than temporary guardians, with 37 percent responding that they had cared for their grandchild(ren) for five or more years. Data from the 2000 Census present a more detailed picture of length of caregiving by factors of race and age (U.S. Census Bureau, 2006). According to 2000 data, Black, Pacific Islander, and Native American/Alaskan Native were the races most likely to care for their grandchild(ren) five or more years, with at least 40 percent of these groups doing so. Grandparents ages 60 years and over were more likely to care for their grandchild(ren) five or more years compared to younger grandparents (55 percent compared to 32 percent, respectively).

According to the 2000 U.S. Census, the most common age of grandchildren residing in a household in which their grandparent was the householder was under six years old. As age increased, the percentage of grandchildren who lived in grandparent-headed households decreased (see Table 2.2). Most (79 percent) of the children were under the age of 11 years.

**Table 2.2: Grandchildren Living in Grandparent Households in U.S. by Age: 2000**

<b>Age</b>	<b>Grandchildren</b>
Under 6 years	47%
6 to 11 years	31%
12 to 14 years	12%
15 to 17 years	10%

### **Prevalence & Characteristics of Grandparent Caregivers in Kansas**

Since 1990, the number of Kansan children who reside in a grandparent-headed household has increased 13% more than the national average, which reflects the increase in Kansan grandparent caregivers (McDonald & Brook, 2004). According to the 2005 ACS, approximately 18,973 grandparents were responsible for their grandchild(ren) in Kansas. Of these, 35.5 percent were raising their grandchild(ren) without either of the child(ren)'s parents present in the household (U.S. Census Bureau, 2006). The grandparent racial breakdown was as follows: 76 percent White and 12 percent Black. Approximately 36 percent of these grandparent caregivers lived in one of the following three cities: Wichita (3,310), Kansas City, KS (1,790), or Topeka (1,694). The percent distribution for the length of care provided for their grandchild(ren)

was very close to national averages, with five or more years being the most prevalent length (31 percent, see Table 2.3). Seventy-four percent of the grandparent caregivers were ages 30 to 59 years old. A detailed age breakdown was unavailable for Kansas, but considering the similarity between U.S. and Kansas data, the trends are most likely consistent. Sixty percent of the Kansas grandparent caregivers were female; 77 percent were married. Two-thirds (66 percent) of the grandparent caregivers were still in the workforce. Thirteen percent were below the poverty level.

**Table 2.3: Comparison of Length of Grandparent Care, U.S. to Kansas: 2005**

<b>Length of Care</b>	<b>United States</b>	<b>Kansas</b>
Less than 1 year	22%	25%
1 to 2 years	24%	26%
3 to 4 years	17%	18%
5 or more years	37%	31%

### **Context for Grandparent Caregiving**

The growing number of grandparents raising their grandchildren in both the U.S. and Kansas has multiple causes (Kataoka-Yahiro, Ceria, & Caulfield, 2004). Grandparents take responsibility for their grandchildren because of parental inability, most commonly due to teen pregnancy; substance abuse; incarceration; mental and emotional instability leading to neglect, abuse, and/or abandonment of the child(ren); and illness or death (Butler & Zakari, 2005; Davidhizar, Bechtel, & Woodring, 2000; Phillips & Bloom, 1998).

The diverse circumstances surrounding grandparent caregiving lead to variety in the amount of care required of the grandparents, including the child(ren)'s length of stay, and the amount of support these grandparents receive. Grandparents may be legally or unofficially responsible for their grandchild(ren). Many child welfare agencies are required to place foster care eligible children with relatives whenever possible, making grandparents chief candidates for this responsibility (Davidhizar et al., 2000).

This often unexpected and undesirable change in roles places added physical, mental, emotional, and financial burdens on these grandparents (Davidhizar et al., 2000). Physically, the demands of keeping up with a child can be strenuous. Feelings of guilt and shame over the

parental failures of their children and the circumstances surrounding these failures may add to the mental and emotional burdens of this group (Kataoka-Yahiro et al., 2004). The new role can provide a plethora of new worries formed by daily uncertainties such as whether the parents or government will take the child(ren), the fate of the child(ren) if the grandparent is unable to take care of them due to sickness or death, and the ability to provide adequately for the child(ren) financially and emotionally. Grandparent caregivers may experience feelings of inadequacy in their abilities to parent a second time. They may feel a loss over the traditional role of a doting, carefree grandparent who has more of a friendship than a parental role. They may feel that they no longer have the support of their community, family, and friends, leading to feelings of isolation. In addition, this group often reports that the situation causes a strain on their marriages and other close relationships.

Grandparent caregiving may pose a strong financial burden. Many older adults in this role are looking forward to retirement or may be living on social security payments and/or other retirement plans. Many grandparent caregivers feel that they have no choice but to continue to work in order to pay their bills (Davidhizar et al., 2000). Some in this group may feel they have to make choices between their healthcare needs and those of their grandchild(ren).

Although many challenges to this population exist, there are positive aspects as well. Many grandparent caregivers report feelings of satisfaction and comfort knowing that they are providing a stable and safe home for their grandchild(ren) in a harsh world. Many of these grandparents feel that the child(ren) brings added joy to their lives through companionship (Butler & Zakari, 2005). Many describe their grandchild(ren) as keeping them young.

### **Changing Child Feeding Attitudes and Practice Recommendations over Time**

An attitude is defined as “a mental position with regard to a fact or state” or “a feeling or emotion toward a fact or state” (Guzzi & Nebeker, 2005). Nutrition-related attitudes are positions or opinions about particular eating, physical activity, or food safety behaviors. These attitudes are associated with the adoption and maintenance of nutrition-related healthful habits (Hollis, Carmody, Connor, Fey, & Matarazzo, 1986). Nutrition-related attitudes measure dietary preferences, perceptions about the role of food, and a person’s views about the benefits and feasibility of adopting healthier habits (Hamm, Schnaak, & Janas, 1995; Nahikian-Nelms, 1997). Nutrition-related attitudes can be positive, such as feeling that diet can increase overall quality of



life, or negative, such as feeling that eating healthfully is unenjoyable and unfeasible (Levine, Wigren, Chapman, Kerner, Bergman, & Rivlin, 1993; Nuss, Clarke, Klohe-Lehman, & Freeland-Graves, 2006).

Unlike new parents who may actively seek current child feeding recommendations and advice from the healthcare community (Barton, 2001; Bernhardt & Felter, 2004), grandparents raising their grandchildren may believe they have adequate information since they have already raised a child(ren). Consequently, many grandparent caregivers may rely on old advice based on outdated research, not realizing that some nutrition-related recommendations have remained constant over time, while others have changed dramatically.

Feeding advice from two editions (1968 and 1998) of author and physician Benjamin Spock's popular book, *Baby and Child Care*, was compared in order to get a sense of changes in common feeding attitudes and practice recommendations over the span of two parental generations. This comparison, when used alongside current medical guidelines and recommendations from sources such as the American Academy of Pediatrics, could be used to develop a context for studying nutrition-related practices and attitudes of grandparents raising their grandchildren. This context could be used to pinpoint specific outdated nutrition-related practices and attitudes which may be currently held or practiced by grandparent caregivers.

The most dramatic changes in child feeding advice from the 1968 to the 1998 editions of *Baby and Child Care* (Spock, 1968; Spock & Parker, 1998) focus on the appropriateness and timing of adding specific foods to an infant's diet. In recent years, avoiding the addition of solid foods before six months of age, and avoiding particular foods including meat, dairy products, nuts, orange juice, and eggs before one year, have been advised because of increasing concern about food allergies (American Heart Association et al., 2006). In contrast, Spock's 1968 version of *Baby and Child Care* recommends starting an infant's first solid food between two and four months and notes that the order in which solids are introduced is not very important. The belief that some babies will not be satisfied by formula alone before six months was condoned in this earlier book edition.

Similar to the changes in solid food introduction, other infant feeding recommendations have changed as well. Food safety concerns, such as infant botulism from honey and bacterial toxin infection from reheated milk or unrefrigerated bottles, were not addressed in the 1968 version of *Baby and Child Care*. Other food-related safety concerns, such as choking hazards

from foods such as grapes and berries, are only mentioned in the 1998 version (Spock & Parker, 1998). Additionally, in recent years, dental health has received more emphasis. Effects of infants and toddlers taking a bottle to bed and the risk of baby bottle tooth decay have been recognized. Spock stated in the 1968 edition that fruit juice was the snack least likely to favor tooth decay. This statement is in opposition to current cautions about juice (Baker et al., 2001). Other infant feeding recommendations and practices in the 1968 edition that are now considered inappropriate include giving a bottle of water alone or of sugar water, propping bottles, making homemade infant formula, and salting or adding sugar to baby food for taste.

Advice about feeding children has also changed with time. Recommendations have shifted away from limiting food between meals (Spock, 1968) to a current emphasis on providing healthful snacks (American Heart Association et al., 2006; Spock & Parker, 1998). In contrast to his past edition, in 1998 Spock mentioned new concerns over the deterioration of the American diet, specifically, current trends toward processed and fried foods, and excessive amounts of dietary sweets, fats, meat, and salt. Precautions against overfeeding caffeine from chocolate and soda pop, and artificial flavors and colors were also included in the 1998 edition. Spock emphasized the importance of starting healthful eating patterns at a young age in order to prevent the onset of diet-related chronic diseases, such heart disease, diabetes, and hypertension in the 1998 edition, and also emphasized specific nutrients, including calcium, iron, and fluoride. He encouraged readers to use the nutrition facts labels looking specifically at fat, sugar, fiber, and sodium content before purchasing food products. Other new child feeding issues addressed in the 1998 version included the following: an emphasis on eating more vegetables and whole grains, purchasing organic and vegetarian foods, eating breakfast before school, preventing childhood obesity, and being aware of eating disorder behaviors.

Childhood obesity has been a popular topic in the media and in health profession realms in recent years due to its increasing incidence. In 2005, the executive summary issued by the American Dietetic Association's Committee on Prevention of Obesity in Children and Youth reported that there are nine million children who are classified as obese over the age of six years in the U.S. (Koplan, Liverman, & Kraak, 2005). Studies have shown that portion sizes and thus calorie consumption have increased for both children and adults (Smiciklas-Wright, Mitchell, Mickle, Goldman, & Cook, 2003).

The positive relationship of television (TV) watching and other forms of “screen” time (computer and video games, movies, etc.) to childhood obesity has been well-established through research studies (Matheson, Killen, Wang, Varady, & Robinson, 2004). Additionally, research has shown that the foods advertised during children’s TV programming tend to be high in refined sugar and fat. However, the link between food consumption and TV viewing as the source of the television-obesity relationship is still inconclusive, since studies’ results are inconsistent (Matheson et al., 2004). The issue of “screen” time is an important consideration when discussing child feeding recommendations and practices over time, since “screen” time has increased over the past few decades along with increasing knowledge of, and accessibility to, technology.

Another feeding issue that has changed over time is the monitoring and control of child feeding. Children are exposed to more variety in environments, such as home – maybe more than one, – school, daycare, relative care, and so forth. Studies have confirmed that parents are not always aware of the food choices their children are making in these varied environments. No such research has been reported specific to grandparent caregivers. A study conducted by Moag-Stahlberg, Miles and Marcello (2003) surveyed 615 parents and children ages 10 to 18 years from the same households to compare the children’s reported motivations and actions versus their parent’s perceptions in the following areas: why and when children eat; school lunch participation and barriers to participation; children’s meals and snacks purchasing habits; children’s involvement in physical activity; children’s role models; parent and child interaction opportunities; child body size and satisfaction; nutritional value of foods eaten, self-assessment; and communication of body size and nutrition. Overall, parents were out of touch with their children’s eating habits and body image satisfaction (Moag-Stahlberg et al., 2003). Parents overestimated how much hunger motivates younger children to eat and underestimated the roles of boredom and depression for all of the children. Parents also underestimated the amount of eating their children do during screen time and after dinner. Almost 75% of the children reported that they buy snacks during the day. However, parents underestimated these purchases, except they overestimated child purchases from school lunch lines. Eighteen percent of the children reported that they do not buy school lunch from the line because they prefer foods from the vending machines. Parents overestimated their children’s body image satisfaction. Parents over-predicted their children’s preferences for indoor activities, and spent much less time in

active interaction such as exercise with their children than in inactive interaction such as watching TV.

### **Nutrition Education Needs of Grandparents Raising Their Grandchildren**

Although little research has been conducted on the nutrition-related practices and attitudes of skipped-generation households in the U.S., much research has been conducted on the nutrition practices of older adults in general. Research supports that older adults eat less and make different food choices as they age (Drewnowski & Schultz, 2001). Older adults as a group, compared to younger populations, tend to eat fewer high-calorie fast foods and sweets and eat more low-fat grains, fruits, and vegetables. In addition, older adults tend to consume fewer calories and fluids. This, in turn, may lead to a higher risk in older adults of fluid, iron, calcium, B vitamins, and vitamin E deficiencies (Drewnowski & Schultz, 2001).

One earmark of a nutritious diet is fruit and vegetable consumption. Fruit and vegetable consumption has increased from 1990 in the U.S., although the majority of adults do not eat five half cup servings per day (Li, Serdula, Bland, Mokdad, Bowman, & Nelson, 2000). While there are additional barriers to fruit and vegetable consumption in the older adult population, older adults over the age of 65 years tend to eat more fruits and vegetables compared to younger adults (Sahyoun, Zhang, & Serdula, 2005). One of the largest barriers for older adults to eating a nutritious diet, including a diet rich in fruits and vegetables, has been social isolation (Sahyoun et al., 2005). With children in their households, skipped-generation homes have this barrier partially alleviated, which may result in more healthful food choices for these older adults and the children under their care.

According to the Behavioral Risk Factor Surveillance System, nutrition education should focus primarily on older adults who are inactive or obese, since these individuals are the group most at risk (Li et al., 2000). Additionally, this type of education could extend to future generations, since familial practices and attitudes have a significant impact on children's dietary choices (Birch & Fisher, 1998; Cooke, Wardle, Gibson, Sapochnik, Sheiham, & Lawson, 2004). Studies have shown that children whose parents are overweight or obese are much more likely to be overweight or obese themselves (Birch & Davison, 2001; Tucker, Seljaas, & Hager, 1997). Because obesity tends to run in families, some people believe that obesity is primarily genetic. However, more evidence supports environmental factors, such as familial eating and exercise

patterns, as the root of the problem rather than genetic factors (Koplan et al., 2005; Ritchie, Welk, Styne, Gerstein, & Crawford, 2005).

Study findings point to the importance of balanced familial control of child food choices. Children who grow up in households in which food is too controlled or restrictive tend to overeat the restricted foods in excess, even when they are not hungry, when able to do so (Birch & Fisher, 1998; Fisher & Birch, 2000). Similarly, children who grow up in households in which food is unregulated tend to be more likely to consume large amounts of soft drinks and sweets and fewer vegetables (Birch & Fisher, 1998; Vereecken, Keukelier, & Maes, 2004).

In a United Kingdom fruit and vegetable consumption study, the strongest predictor for increasing fruit and vegetable consumption among children ages two to six years appeared to be parental fruit and vegetable consumption, with the children's level of food neophobia (fear of trying new foods) as a secondary predictor (Wardle, Carnell, & Cooke, 2005). Likewise, a similar study with fourth through sixth grade children found that fruit, juice, and vegetable consumption was positively correlated with parental modeling and availability of these foods (Cullen, Baranowski, Rittenberry, Cosart, Hebert, & de Moor, 2001). Results of these and other studies indicate that appropriate parental modeling and control are key in helping children both overcome their fears of new foods and increase their fruit and vegetable consumption. In turn, these parental behaviors may be vital in helping children form healthy eating behaviors and thus achieve appropriate weights.

Little to no research has been published concerning the influence of U.S. grandparent or other older caregivers' weight on the body weights of the children for whom they are caring. However, if the problem is primarily environmental, the risk for this population should be similar to that for younger adults. This assumption supports the importance of targeting inactive and obese grandparent caregivers with nutrition education for the health of the caregiver as well as the health of the children in their care.

Both parents and grandparents expressed concern over their children and grandchildren's unhealthful eating practices and used multiple strategies to get family members to eat healthfully, as reported by Kaplan, Kiernan, & James (2006). Their study examined intergenerational family conversations and decisions about healthful eating in 17 families (21 pre-teens, 16 parents, and 7 grandparents). Barriers to helping children eat healthfully included the following: disagreement over foods to purchase, financial limitations, and the abundance of inexpensive, fast but not

healthful foods. Their findings also pointed to a lack of communication between all three generations at times concerning healthful nutrition behaviors (Kaplan et al., 2006).

Several studies have examined barriers to receiving the financial and emotional support needed by minority grandparents who are raising their grandchildren. A grandparent caregiving study that focused on Latino families found that the largest barrier to the grandparents who were seeking financial assistance was their lack of knowledge of what is available to them (Burnette, 1999). Likewise, a study of African American caregivers found that educational programs assisting the grandparents to parent more effectively were successful and well-received when cultural tailoring was used (Strom, Strom, Collinsworth, Strom, & Griswold, 1996).

Several educational programs have addressed nutrition among grandparent caregivers. One recent study, conducted by Kicklighter, Whitley, Kelley, Shipskie, Taube, and Berry (2007), found that an intervention program held in conjunction with grandparent support groups that were targeted specifically to urban African American grandparents who were raising their grandchildren was successful in increasing their knowledge about nutrition and physical activity. In addition, this study used content analysis to discover perceived influences on healthful eating and physical activity for the 18 grandparents. From this analysis, three main influences were identified: presence of the grandchildren, cultural foods, and financial issues (Kicklighter et al., 2007). Many grandparents with insufficient financial resources who are raising their grandchildren decrease their grandchildren's food portion sizes at times (Serrano & Henderson, 2004).

Grandparents influence the eating behaviors of their grandchildren, according to a study of three-generation households in China (Jingxiong, Rosenqvist, Huishan, Greiner, Guangli, & Sarkadi, 2007). Semi-structured, in-depth interviews were conducted with 23 urban families on the grandparents' eating attitudes and child feeding behaviors. The majority of grandparents did most of the food shopping and cooking, which led to the children preferring the grandparents' food selections. The grandparents often overfed the children because they perceived overweight children as healthy. In addition, the grandparents held the attitude that good food is expensive. The grandparents' experiences of poverty often led to them to be too permissive in feeding as well as pushing the children not to waste any food. Conflicting ideas existed between generations over the children's weight and appropriate food portion sizes. Grandparents often rewarded the children's good behavior with snacks, particularly non-nutritious foods. They

expressed love and care through food, and particularly enjoyed providing foods of the children's preferences, which were not always the most inexpensive or healthful.

## **CHAPTER 3 - Study Description/Methodology**

This project used a qualitative approach through in-depth face-to-face interviews in which the interviewer asked questions about nutrition-related practices and attitudes. The interviewer used a semi-structured interview format with time left at the end of the interview to pursue any topics brought up by the participant not specifically addressed in the questions asked (Patton, 2002). This approach provided a standardized question framework while allowing for flexibility to explore topics not anticipated. This approach was particularly appropriate considering the limited amount of time available for each interview and the increased ease of theme comparison in data analysis.

### **Justification of Qualitative Interviewing**

The use of qualitative methods in health-related educational research has increased over the last few decades (Britten, 1995; Sobal, 2001; Ulin, Robinson, & Tolley, 2005). Qualitative interviewing seeks to capture a participant's detailed personal perspective on a particular topic (Patton, 2002). Interviewing facilitates this unique perspective by allowing the researcher to meet alone with the participant, limiting the influence and opinions of others on the participant's responses. In addition, interviews allow researchers to spend a greater amount of time with the participant compared to other research methods, allowing them to take a constructionist approach to topics (Rubin & Rubin, 2005). This time is often in the participant's own world, at home or a comfortable mutual meeting place, rather than at the university, which allows for a more natural setting. The study's credibility can be enhanced through the social context provided by these types of interviews since the researcher has time to observe the subject and his or her interactions within this less artificial environment (Sobal, 2001).

Qualitative interviewing was the most appropriate method for this study for several reasons. First, since little research has been published focusing on the area of nutrition-related practices and attitudes of the grandparent caregiver population, few assumptions could be made about this group. Thus, open, exploratory research was needed in order to lay the foundation for future qualitative and quantitative studies. Research that generates detailed narrative data will



provide a context both for the research topic and the population. Second, because of the sensitive nature of the relationships and circumstances surrounding skipped-generation caregivers and the complexity of their situations, it was important for participants to feel comfortable and protected. Personal interviews provided a safe, confidential, comfortable, and intimate research setting free from the judgment and opinions of others. Third, since skipped-generation caregivers are a relatively small percentage of the Kansas population spread throughout the state and they are often busy with their roles of parenting for the second time, it was foreseen that recruitment may be difficult. Therefore, personal interviews were conducted at times and places convenient to each participant in order to increase the number of participants willing to be involved in the study (Fuller, Hsu, Mandelkorn, O'Shaughnessy, & Tiller, 2001; MacDougall & Fudge, 2001).

## **Participants**

To participate in the study, caregivers had to be (a) 45 years of age or older, (b) living in Kansas, and (c) the sole caregiver for their grandchild(ren) or another skipped-generation child relative under the age of 18 years. Forty-five years old was chosen as the age cutoff for participants because this age is the youngest age found in research concerning “older adults” (Gubrium & Holstein, 2002).

The number of participants needed for valid nutrition education qualitative interviewing research is variable (Patton, 2002; Sobal, 2001). According to a retrospective analysis study, qualitative interviewing studies published in the *Journal of Nutrition Education* over a thirty year period ranged from 15 participants to 155 participants (Sobal, 2001). Twenty-three participants representing 19 households were interviewed for this study. This number provided an adequate scope and data saturation for the project (Patton, 2002).

The protocol for working with participants was approved by the K-State Committee on Research Involving Human Subjects. Participants were assigned pseudonyms and identification numbers on all transcripts and identifying geographic names or other identifiers were changed to maintain participant confidentiality. Interview audiotape recordings are protected in a locked secure office. After 3 years, these identifying recordings will be destroyed.

## **Recruitment**

Recruitment efforts targeted grandparents with limited resources who were currently participating in Kansas State University's Food Stamp Nutrition Education. Participants were recruited through grandparent support groups and referrals from K-State Research and Extension county faculty. This study used a snowball sampling strategy in which participants were selected based on a recommendation by someone who knew them and believed that they would be a good representative of the larger group and a good interview candidate (Patton, 2002). An incentive of \$15 per family was offered as compensation for any costs incurred by participating in the interview and to assist with recruitment.

## **Instrument Development**

Topics for the interviewing guide were based on recent feeding and physical activity guidelines and recommendations, current nutrition-related areas of concern, and recent changes in U.S. feeding trends from the American Academy of Pediatrics; U.S. Department of Agriculture; the Women, Infants and Children Program; International Food Information Council; and selected reviews of literature (American Heart Association et al., 2006; Baker et al., 2001; Bar-on et al., 2001; Fiocchi, Assa'ad, & Bahna, 2006; Gartner et al., 2005; James, 2004; Johnson, Gerstein, Evans, & Woodward-Lopez, 2006; Koplan et al., 2005; Krebs et al., 2003; Moag-Stahlberg et al., 2003; Ritchie et al., 2005; Women, Infants, and Children Program, 2007). In addition, interview questions were developed that targeted child feeding beliefs and recommendations that have changed in the 30 years from one generation to the next. These were selected by comparing feeding advice from two editions of author and physician Benjamin Spock's popular book *Baby and Child Care*, 1968 to 1998 (Spock, 1968; Spock & Parker, 1998).

The interview guide had five categories of questions: participant background information; nutrition-related attitudes; nutrition education experiences; nutrition-related practices including eating, physical activity, and food safety; and perceived usefulness of future population-specific nutrition education materials. See Appendix A.

Questions were primarily open-ended, avoiding dichotomy in order to elicit more informative responses (Patton, 2002). Main questions were followed up by detail-oriented,

elaboration, and clarification probes when appropriate. During instrument development, questions were checked for singularity and clarity as recommended by Patton (2002). The guide was beta-tested by completing interviews with two grandmothers who had grandchildren in their homes, but who were not the primary caregivers. The instrument was approved to the K-State Institutional Review Board.

## **Data Collection**

Interviews were arranged over the phone. One to two days before each interview was to occur, the interviewer called to remind the participant of the place and time. All interviews were conducted by the same researcher, a Registered Dietitian, over a two month period. Interviews were conducted in a setting selected by the participant. The interviewer drove a K-State Research and Extension vehicle and wore a K-State name badge to enhance her credibility, which is particularly important when interviewing older adults (Gubrium & Holstein, 2001).

The interviewer described the protocol to the study participants and gave them time to read about the protocol in detail. These volunteers signed consent forms. Participants were told at the onset of the interviews that they could refuse to answer any question without penalty. Regardless of the number or depth of questions answered, participants were offered the \$15 per family compensation. Participants were told that there were no “right” or “wrong” answers to the questions, the purpose was to get a true sense of their unique practices and perspectives.

The interviewer worked to build rapport with the participants both at the beginning of the interview and then through reinforcement and feedback to participants’ responses periodically throughout the interview (Patton, 2002). The interviewer worked to maintain neutrality to participants’ responses throughout the interviews.

Interviews were recorded on audiotape with participants’ permission. In addition, the interviewer took notes of non-verbal communication and any relevant environmental factors, such as perceived economic status, during the interview, on the formatted interview guide sheets. Directly after each interview, the interviewer reviewed the interview notes to check for clarity and entered the demographic information into a coded spreadsheet. The names of all identifiers were changed to assure the confidentiality of the participants. Data collection continued until no new themes emerged.

## **Data Analysis**

Interviews were transcribed verbatim and checked for accuracy. Content analysis, a technique frequently employed to analyze transcripts from health-related qualitative research interviews (Krippendorff, 2004; Ulin et al., 2005), was used to find themes both within each interview and between interviews. Transcribed quotes were sorted categorically according to the researchers' primary questions and additional emerging categories. The categorized quotes were then coded. Pattern recognition and repetition were used to identify themes (Patton, 2002). Data analysis incorporated the triangulation technique of peer debriefing by research team members throughout the study for increased credibility (Patton, 2002).

Descriptive statistics were used for demographic variables and questions that received "yes" or "no" answers. These statistics were obtained using Microsoft Excel (Microsoft Office, 2003).

## CHAPTER 4 - Journal Manuscript

### Nutrition-Related Practices and Attitudes of Kansas Skipped-Generation Caregivers and their Grandchildren

#### Abstract

**Purpose:** Skipped-generation households are increasing both nationally and in Kansas. This qualitative study explored the nutrition-related practices and attitudes of Kansas older skipped-generation caregivers and the children under their care. **Design and Methods:** Twenty-three Kansas caregivers representing 19 households were interviewed about a range of topics using a semi-structured approach. Interview transcriptions were content analyzed. **Results:** Nutrition-related practices and attitudes changed over time. Compared to when they were parenting the first time, skipped-generation caregivers reported that they are more nutrition and food safety conscious and have shifted in their parenting style. Their grandchildren appeared to be adversely affected by an on-the-go lifestyle and the use of more electronics. Caregiver sources of child feeding advice are based mostly on tradition. Caregivers believed that nutrition and safe food handling are important; they held beliefs that nutritious food is expensive; and most did not believe they would use population-specific nutrition education materials. The preferred distribution of nutrition education materials was through grandparent support groups. **Implications:** Research was exploratory in nature with a limited sample size. This population could benefit from education incorporating topics on infant, child, adolescent, and sports nutrition; healthful recipes and snack ideas; quick and inexpensive healthful meals that are low in fat, sugar, and salt; healthful fast food and packaged food options; the importance of checking the internal temperatures of meat when cooking; ways to feed “picky eaters;” benefits of eating together as a family; tips to limit children’s sedentary time; and intergenerational gardening and cooking.

**Key Words:** Custodial grandparents, qualitative nutrition research, child feeding, eating beliefs

## **Introduction**

The proportion of children being raised by their grandparents or another older adult relative is increasing in the United States (U.S.). This group has grown enough to find its way into the U.S. Census: 2000 was the first year to ask specific questions on grandparent care giving. According to the U.S. Census Bureau's 2005 American Community Survey (ACS), 2,458,806 adults ages 30 years and over are considered "grandparent caregivers," a group defined by the Census as "people who had primary responsibility for their coresident grandchildren younger than 18" (U.S. Census Bureau, 2006). These recent ACS data show a two percent increase from the 2000 Census data.

Since 1990, the number of Kansan children who reside in a grandparent-headed household has increased 13% more than the national average (McDonald & Brook, 2004). According to the 2005 ACS, approximately 18,973 grandparents were responsible for their grandchild(ren) in Kansas. Of these, 35.5 percent were raising their grandchild(ren) without either of the child(ren)'s parents present in the household (U.S. Census Bureau, 2006).

Along with the increasing prevalence of grandparent caregivers is an increasing amount of research specific to this population group. Although the emotional, financial, familial, psychological, and legal implications for these skipped-generation households have been studied, little research has been published concerning nutrition-related practices and attitudes of these older adults and the children in their care.

Familial practices and attitudes have a significant impact on children's dietary choices (Cooke, Wardle, Gibson, Sapochnik, Sheiham, & Lawson, 2004). For example, children whose parents are overweight or obese are much more likely to be overweight or obese themselves (Birch & Davison, 2001; Tucker, Seljaas, & Hager, 1997). More evidence supports environmental factors, such as familial eating and physical activity patterns, as the root of the problem rather than genetic factors (Koplan, Liverman, & Kraak, 2005; Ritchie, Welk, Styne, Gerstein, & Crawford, 2005). Also, studies have shown that both being too controlling or too relaxed with child feeding can result in less healthful child dietary choices and weight status (Birch & Fisher, 1998; Vereecken, Keukelier, & Maes, 2004).

Both parents and grandparents expressed concern over their children and grandchildren's unhealthful eating practices and used multiple strategies to get family members to eat healthfully, as reported by Kaplan, Kiernan, & James (2006). Their study examined intergenerational family conversations and decisions about healthful eating in 17 families (21 pre-teens, 16 parents, and 7 grandparents). Their findings also pointed to a lack of communication between all three generations at times concerning healthful nutrition behaviors (Kaplan et al., 2006).

Grandparents influence the eating behaviors of their grandchildren, according to a study of three-generation households in China (Jingxiong, Rosenqvist, Huishan, Greiner, Guangli, & Sarkadi, 2007). Semi-structured, in-depth interviews were conducted with 23 urban families on the grandparents' eating attitudes and child feeding behaviors. The majority of grandparents did most of the food shopping and cooking, which led to the children preferring the grandparents' food selections. The grandparents often overfed the children because they perceived overweight children as healthy. In addition, the grandparents held the attitude that good food is expensive. The grandparents' experiences of poverty often led to them to be too permissive in feeding as well as pushing the children not to waste any food. Conflicting ideas existed between generations over the children's weight and appropriate food portion sizes. Grandparents often rewarded the children's good behavior with snacks, particularly non-nutritious foods. They expressed love and care through food, and particularly enjoyed providing foods of the children's preferences, which were not always the most inexpensive or healthful.

The presence of grandchildren also influences grandparents' dietary intakes. Perceived influences on healthful eating and physical activity for 18 urban African American grandparents who were raising their grandchildren were reported in a recent study conducted by Kicklighter, Whitley, Kelley, Shipskie, Taube, & Berry (2007). Three main influences were identified using content analysis of interviews: presence of the grandchildren, cultural foods, and financial issues. The authors also reported that an intervention program that was held in conjunction with grandparent support groups was successful in increasing the grandparents' knowledge about nutrition and physical activity.

Unlike new parents who may actively seek current child feeding recommendations and advice from the healthcare community (Barton, 2001; Bernhardt & Felter, 2004), grandparents raising their grandchildren may believe they have adequate information since they have already raised a child(ren). Consequently, many grandparent caregivers may rely on old advice based on

outdated research, not realizing that some nutrition-related recommendations have remained constant over time, while others have changed dramatically. Nutrition education materials tailored to skipped generation households could help bridge the gap between past knowledge and practices and current recommendations. Knowledge of the nutrition-related practices and attitudes of this target group could lay the foundation for educational material development. These resources could help grandparents feed the children in their care more appropriately, ultimately increasing the quality of life and overall health of the children in their care and making the task of parenting a second time a little less burdensome.

Accordingly, the current study used a qualitative approach to answer the research question, “What are the nutrition-related practices and attitudes of Kansas older adult grandparents or other skipped-generation caregivers and the children under their care?” By listening to this population, educators can also better understand how to communicate nutrition information to them more effectively.

## **Design and Methods**

### ***Design***

In-depth, face-to-face qualitative interviewing was the most appropriate method for this study for several reasons, including the exploratory nature of the research, the sensitive nature of the research topic, and the convenience to the caregivers which increased study participation. The interviewer used a semi-structured interview format with time left at the end of the interview to pursue any topics brought up by the participant not specifically addressed in the questions asked (Patton, 2002).

### ***Instrument Development***

The interview guide had five categories of questions: participant background information; nutrition-related attitudes; nutrition education experiences; nutrition-related practices including children’s eating and physical activity, and food safety; and perceived usefulness of future population-specific nutrition education materials.

Questions were primarily open-ended, avoiding dichotomy in order to elicit more informative responses (Patton, 2002). Main questions were followed up by detail-oriented, elaboration, and clarification probes when appropriate. During instrument development,



questions were checked for singularity and clarity as recommended by Patton (2002). The guide was beta-tested by completing interviews with two grandmothers who had grandchildren in their homes, but who were not the primary caregivers.

### ***Participants***

To participate in the study, caregivers had to be (a) 45 years of age or older, (b) living in Kansas, and (c) the sole caregiver for their grandchild(ren) or another skipped-generation child relative under the age of 18 years. This study used a snowball sampling strategy in which participants were selected based on a recommendation by someone who knew them and believed that they would be a good representative of the larger group and a good interview candidate (Patton, 2002). Recruitment efforts targeted grandparents with limited resources who were currently participating in Kansas State University's Food Stamp Nutrition Education. Participants were recruited through grandparent support groups and referrals from K-State Research and Extension county faculty. An incentive of \$15 per family was offered as compensation for any costs incurred by participating in the interview and to assist with recruitment.

### ***Procedures***

The study was approved by the K-State Committee on Research Involving Human Subjects.

Interviews were arranged over the phone. One to two days before each interview was to occur, the interviewer called to remind the participant of the place and time. All interviews were conducted by the same researcher, a Registered Dietitian, over a two month period. Interviews were conducted in a setting selected by the participant. The interviewer drove a K-State Research and Extension vehicle and wore a K-State name badge to enhance her credibility, which is particularly important when interviewing older adults (Gubrium & Holstein, 2001).

The interviewer described the protocol to the study participants and gave them time to read about the protocol in detail. These volunteers signed consent forms. Participants were told at the onset of the interviews that they could refuse to answer any question without penalty. Regardless of the number or depth of questions answered, participants were offered the \$15 per family compensation. Participants were told that there were no "right" or "wrong" answers to the questions, that the purpose was to get a true sense of their unique practices and perspectives.

Interviews were recorded on audiotape with participants' permission. Directly after each interview, the interviewer reviewed the interview notes to check for clarity and entered the demographic information into a coded spreadsheet. The names of all identifiers were changed to assure the confidentiality of the participants. Data collection continued until no new themes emerged.

### ***Data Analysis***

Interviews were transcribed verbatim and checked for accuracy. Content analysis, a technique frequently employed to analyze transcripts from health-related qualitative research interviews (Krippendorff, 2004; Ulin, Robinson, & Tolley, 2005), was used to find themes both within each interview and between interviews. Transcribed quotes were sorted categorically according to the researchers' primary questions and additional emerging categories. The categorized quotes were then coded. Pattern recognition and repetition were used to identify themes (Patton, 2002). Data analysis incorporated the triangulation technique of peer debriefing by research team members throughout the study for increased credibility (Patton, 2002).

Descriptive statistics were used for demographic variables and questions that received "yes" or "no" answers. These statistics were obtained using Microsoft Excel (Microsoft Office, 2003).

## **Results**

### ***Participants***

Twenty-three caregivers representing 19 households were interviewed for this study (4 male and 19 female). Interviews were conducted in the participants' homes or the local library except for three interviews, which were conducted at the participants' workplaces. Interviews averaged one hour but ranged from half hour to two hours in length. The majority (78%) of those interviewed were grandparent caregivers. The remaining 22% were either great aunt or great grandparent caregivers. The majority of the caregivers were married (70%) non-Hispanic whites (92%). Eighty-nine percent of households lived in rural areas (<40 residents per square mile) of Kansas. Caregivers ranged in age from 47 to 80 years, with a mean of 62 years. The children were primarily non-Hispanic whites (56%) or of mixed descent (32%) and ranged in age from 3 to 18 years, with a mean of 12 years. Sixty-eight percent were male. Length of care

ranged from less than a year to 18 years, with a mean of 9 years. The average number of skipped-generation children for which the caregivers were primarily responsible was one child, with a range from one to four children. Thirty-seven percent of the households reported that they currently received some form of governmental monetary assistance. The circumstances leading to the skipped-generation care stemmed mostly from deemed parental inability because of child abuse and/or neglect, illegal activity, teen pregnancy, or mental health issues. Only three households (16%) reported they were providing care because of parental death.

### ***Findings***

Findings from this study of skipped-generation households were divided into two overarching themes reflecting the objectives of the study: nutrition-related practices and nutrition-related attitudes. Each theme had several sub-themes, as illustrated with quotes that convey how the participants described their practices and attitudes. Caregivers held a wide variety of nutrition-related practices and attitudes.

#### ***Nutrition-Related Practices***

Within the nutrition-related practices theme, five sub-themes emerged. Compared to when they were parenting the first time, skipped-generation caregivers overall reported that they are more nutrition and food safety conscious and that their grandchildren are adversely affected by an on-the-go lifestyle and the use of more electronics. Caregivers have shifted their parenting style. Their sources of child feeding advice are based mostly on tradition.

***More Nutrition and Food Safety Conscious***—All but one caregiver described practices that showed they are more nutrition and food safety conscious with raising their second generation of children than their first. The most common of these practices included providing a more nutritious variety of foods in the diet (including increasing servings of fruits, vegetables and milk), reading the nutrition facts labels on packaged products, cooking more foods from “scratch” rather than from packages, storing foods properly, and keeping food areas clean during preparation. Thirteen of the 19 households reported that they use the nutrition facts labels when shopping. Fat, sugar, and sodium content were the items on the label they looked at most often.

I don't remember people being as nutrition-conscious or reading labels then. I've tried to be more conscious of what I feed him [my grandson], but then he's also been more receptive. (No. 10, grandmother)

One food that I use more of with [my grandson] than I did with my kids – broccoli and cauliflower and more of the exotic fruits. We're more apt to try kiwi fruit or try more things. Sometimes [he] will see something and ask about it and if we can afford it, we'll get one and try it. (No. 11, grandmother)

Well, I make sure that the refrigerator's on the right temperature. I make sure things are covered and put in the refrigerator. I make sure that the meat is cooked. I'm very conscious about that. I make sure that the raw vegetables are washed. I'm pretty conscious about food safety. And I teach the kids that.  
(No. 7, grandmother)

'Cause back when I was growing up and when my kids were small, if you had leftovers, you should let them sit and cool. You shouldn't put hot stuff in the refrigerator. And I've learned since then that you don't do that. I always did what my folks did. (No. 10, grandmother)

Caregivers most commonly attributed their improved awareness to having more time to plan meals and cook, more financial resources, and more information about nutrition and food safety because it was more available and emphasized more in modern society.

You don't have time or pay attention to what they're [your children] eating as working parents because you want to get them fed as quickly as you possibly can. My focus entirely changed when I became a stay at home parent.  
(No. 2, grandfather)

Fewer packaged foods, I do more cooking. Yeah, 'cause I used to work, and I don't work. And it was working and [taking care of] three [kids], and now it's not working and one. (No. 13, grandmother)

***On-the-Go Lifestyle Reduces Healthful Eating***—Although most caregivers reported many healthful changes in raising their second set of children, such as planning nutritious meals, these skipped-generation households as a whole reported some less healthful changes because of the shift in society towards a busy, on-the-go lifestyle. Even though the caregivers and their grandchildren were more aware of nutrition, that knowledge did not always result in the most healthful food selections. Several grandparents noted the increased availability and consumption of packaged products, pizza, “junk” foods, and fast food.

‘Cause he [my grandson] eats lunch out. The boys [my sons] didn’t have any place to go, they had to eat at school, and our daughter had to eat lunch there. We didn’t have McDonalds or Sonic or any of those things. (No. 9, grandfather)

We probably do more frozen pizzas occasionally ‘cause she [my great-neice] likes to get them. I do make them from scratch sometimes too. If they have them on sale, she’ll say, “let’s get a pizza.” And they’re nice too, because you can pull them out and they’re fast. (No. 23, great-aunt)

Many caregivers attributed their grandchildren’s poor eating habits to having less time to eat healthfully and needing to eat something quick for breakfast or fast food when out. Fourteen of the 19 households had at least one child involved in team sports, which took a lot of time and was often coupled with selecting quick, unhealthful foods. The households with teenage boys with driver’s licenses seemed to eat the least healthfully. Because of the irregularity of the boys’ schedules, they had an almost daily consumption of fast foods and high amounts of “junk” snack foods.

They [our grandsons] really don’t want to sit down for a good meal. All they want is junk food. Our kids didn’t really eat junk food. It seems like they’re not here half the time. (No. 19, grandfather)

Several caregivers specifically mentioned that they used to raise their own meat, fruits, and vegetables, but now they buy them. Many of the caregivers reminisced about a slower pace when they were parents the first time.

And we lived on a farm, so you had access to all the green eggs and fresh vegetables. We had a big garden and stuff so I didn't buy a lot of stuff. I canned a lot of stuff and worked in the fields. (No. 3, grandmother)

***More Electronics Increase Sedentary Activities***—Many caregivers noted the increase between generations in children's use of electronics, from hand-held video games to computers. Caregivers reported an average of 2.5 hours of screen time each day for their grandchildren. Several caregivers said that their grandchildren spend too much time in sedentary activities: watching television, playing video games, and playing on the computer. In addition, several caregivers noted that advertisements both on television and the internet caused them or their grandchildren to purchase foods they would not otherwise have purchased.

Our kids never had video games, but as far as the rest of it [child rearing between generations], it's pretty much the same. (No. 18, grandmother)

Another thing is my kids didn't have all the electronic stuff. I'm not for it. (No. 22, grandmother)

He [my grandson] loves video games, TV, computer. But more than the strenuous activity, he's more of a computer guy... I'd say most of the day, until I get home and then I boot him out. So, quite a bit actually. If I didn't work it would be different, but I'm not there to get him off. (No. 21, grandmother)

***Shifts in Parenting Styles***—Caregivers all reported shifts in their parenting styles which affected their child feeding practices. The degree of change from parenting one generation to the next varied widely from minor to major. Two main types of shifts in parenting style emerged. The first was characterized as being more relaxed and indulgent

with the second generation. For example, these caregivers reported catering to the food preferences of their grandchildren, and some struggled not to “spoil” the grandchildren by allowing too many “junk” foods. The children being raised by these caregivers tended to be “pickier eaters” than their earlier counterparts. Another common practice that these caregivers noted was a shift from family meals together at the table to eating around the television or eating separately.

The other five [children] would try anything. He [my great-grandson] don't want to try [new foods]. (No. 6, great-grandfather)

With the first group of kids, we insisted on the table, and when we first got [my grandson], I insisted on the table again. But we're kind of at that 'forget it' age. (laughs) So we do eat together, but it's in front of the television set. (No. 4, grandmother)

The second parenting style shift was characterized as being more involved in feeding. The caregivers in this group tended to be more protective of their second group of children including more carefully monitoring child feeding. This group shifted to scheduled meals at the table as a family, and they were the more nutrition-conscious caregivers.

But I'm more conscious with these kids than I was with my own kids, about nutrition and about everything else. I have more time to plan meals, to prepare them. I'm not getting off work at 5 o'clock and having dinner on the table at 5:15. Now we all have dinner together at 6 o'clock. And I do see that they eat better than what my kids were allowed to. When my kids were growing up, if they were hungry when they came home from school, they'd grab something and if they weren't hungry for dinner, no big deal. Like I said, this shouldn't be an excuse but I worked, I was tired. “Eat when you're hungry. Get a baloney sandwich if you're hungry.” I think I'm older and wiser. (laughs) (No. 7, grandmother)

*Sources of Child Feeding Advice*—All but two of the households mentioned that over the years, their primary sources of child feeding advice were tradition or family, particularly their mothers. Additionally, nine of 17 households mentioned their family doctor or pediatrician as a main source of feeding advice when their first children were born or adopted. Many caregivers commented that there was much less emphasis on child feeding by society with their first set of children compared to their second set. When asked if they sought additional sources of nutritional advice for parenting the second time, the majority described relying primarily on their past parenting experiences, although a few mentioned governmental programs such as the Health Department, University Extension, or the Women, Infants, and Children Program.

My mom. Yeah, my mom, and like anyone's mom, she was the best mom in the world. (laughs) And she was such a good cook. And it [the advice] was just from her. (No. 15, grandmother)

By the time the fourth one [of my children] came along, we moved to Kansas and we didn't have a pediatrician, but I just fed her the same way as the other ones. And I think it was the doctor that got me going. And [my grandson] was raised the same way. (No. 12, grandmother)

I knew the basics coming from Mexico, because in Mexico most of the women are into breastfeeding and good nutrition. When it came to the children later on growing up, when I was babysitting children, the Health Department would provide information on the pyramid and nutrition. And that's where I learned a lot of stuff for my kids, and grandkids too. (No. 17, grandmother)

### *Nutrition-Related Attitudes*

Within the nutrition-related attitudes theme, three sub-themes emerged: the caregivers believed that nutrition and safe food handling were important; they held beliefs that nutritious food is expensive; and most did not believe they would use population-specific nutrition education materials.



***Nutrition and Safe Food Handling***—Many caregivers noted that their attitudes towards nutrition and child feeding shifted from simply eating to obtain energy toward the goal of eating to obtain nutrients through a balanced diet in order to avoid chronic diseases. Several caregivers mentioned the importance of giving this second generation a good start so that they would form life-long nutritious eating habits. Several expressed concerns about the recent rise in childhood obesity and other health conditions, such as diabetes. Several caregivers had chronic conditions themselves, including diabetes and heart conditions, which made them more aware of the role of nutrition in health. Several caregivers mentioned that they used to view a “good” meal as one that included meat and potatoes, but now they believe that it is important to incorporate more variety, including more fruits and vegetables. Several female caregivers mentioned that this “meat and potatoes” attitude came primarily from their husbands. Caregivers believed that it was important to eat less fat, sugar, and salt in their households’ diets. The majority did this by reading the nutrition facts labels. However, six caregivers thought that it was unnecessary for them to read labels because they already had a good feel for the nutritional value of the products they buy.

I was worried about the old group [my children] and tried to do my best but I didn’t know what all was good at that time. But I’ve learned a lot since then.  
(No. 17, grandmother)

He [my grandson] knows I have to watch my carbs and eat a lot of salads. And he knows that I eat what I’m not supposed to. But he is more aware of food, more than any of my kids was, of the impact it has on your health.  
(No. 22, grandmother with diabetes)

But trying to give them [my granddaughters] as good a start as possible nutritionally, and learning how to have pop and stuff like that in moderation – you can have them but you don’t need them all the time. But we try to encourage fruits and vegetables and try to get them on a track of good nutrition so that

possibly when they have their own kids, they'll do the same thing. And maybe that will extend to a healthy lifestyle. (No. 2, grandfather)

The two main concerns the caregivers expressed about their grandchildren's eating habits were that the children were not eating enough food overall and/or that the children were eating too much fast food, sweets, sports drinks, energy drinks, fatty snacks, and other "junk" foods.

He's [my grandson] so small and I want him to eat more than he eats, but he doesn't eat a lot at one time. Now sometimes he'll get into the junk food and he'll eat a lot of unnutritious food at one time. (No. 13, grandmother)

Well, the oldest one [of my grandchildren] wants a lot of junk food. I tell you what! Pizza, pizza, pizza, that kid could live off of pizza. (No. 19, grandfather)

Regarding attitudes towards safe food handling, the majority (16 of 19 households) conveyed beliefs that storing food properly in a refrigerator or freezer is important. Many caregivers also stressed the importance of checking expiration dates on food or leftovers, cleaning food preparation areas, washing fruits and vegetables, and cooking foods properly. In contrast to their opinions about the importance of cooking foods properly, however, only one household reported checking internal temperatures on a regular basis. Rather, the majority of caregivers stated that they could adequately tell when meat was cooked long enough by the way it looked or smelled.

I had a meat thermometer, but I don't use that. I just know if it's done if the chicken doesn't have blood against the bone. It's just something you pick up when you've cooked for so many years. (No. 8, grandmother)

***Food and Economics***—One of the most common food attitudes was that it is expensive to eat nutritiously. Many caregivers reported that they were making monetary sacrifices to eat more healthfully. Others stated that the reason they could eat more healthfully with the second generation of children was because they had more money to purchase fresh

foods, including more fruits and vegetables. The majority of the caregivers reported that price influenced not only what they bought but also where they shopped.

And economically, now days, in order to buy food that actually fills the kids up, you can't afford good stuff, because it's expensive to eat healthy. It's very, very expensive to eat healthy. And that's one of the main sacrifices that we've had to deal with is groceries have become so much more expensive because we're paying a lot more attention to what we're buying as opposed to a lot of the junk the FDA has approved for us to eat. (No. 2, grandfather)

These boys [our grand-nephews] are probably being fed better than ours were because just the difference in our jobs and what we could afford to buy and that kind of stuff... just keeping more food overall – more snacks and more variety of things. (No. 16, great-aunt)

Because when we were first starting out, money was tighter, so when we shopped it was always the bargains. And sometimes the bargains weren't always the healthiest choices, but when we had a family of four, you tried to stretch the budget. (No. 20, grandmother)

***Population-Specific Nutrition Education Materials***—The majority of the caregivers stated they would not use nutrition education materials tailored to them. While some of these caregivers said these kinds of materials may be helpful to other skipped-generation caregivers, others believed that skipped-generation caregivers in general already know what to do or are too “stuck in their ways” to change. Some of the caregivers held the belief that nutrition is the least of skipped-generation households' worries. Age did not seem to be an indicator of whether the caregivers had a positive or negative attitude toward educational materials.

Mostly grandparents know by now how they're going to buy food. At my age, there's not a lot I haven't learned about food because I've been there and done that. But there's different ages of grandparents.

(No. 3, grandmother, age 68 years)

You know, there's a lot of us [grandparent caregivers] out there, but I'm not sure how many would really be willing to change. It might be kind of according to their age and how set they were and things. And how they eat before they got their grandchildren and stuff. I think that if somebody used all boxed and prepared food and stuff, I think that's what they're going to keep doing. I can't see them shifting. (No. 8, grandmother, age 70 years)

However, six caregivers said they would be interested in nutrition education materials tailored to them. Some of the most common suggestions for these materials included information on nutrition as it relates to adolescents, sports, and healthful recipes and snack ideas. The majority of caregivers stated that brochures or newsletters were more likely to be used than classes, and stressed that the best way to distribute the information would be through grandparent support groups.

I've been involved with my kids, my grandkids and now my great grandkids. But things have changed down through the years. Every ten years is different. And I think that if you don't have some guidelines, you can't keep up.

(No. 14, great-grandmother, age 80 years)

What causes acne. That's what we're fighting right now with puberty... Just at this stage in his [my grandson] life... But nutrition plays such an important part of your hair and your skin. I know I'm not telling you anything, but I don't think a lot of kids realize, especially girls who want the shiny hair and the good teeth and everything like that, so I would say more education on what makes you healthy on the outside, 'cause they're not going to care at this age what makes you healthy on the inside. (No. 4, grandmother, age 58)

I think just a refresher on how many times a week they [children] should get fruits and vegetables and maybe some alternative foods for snacks that are not high in sugar and are better for them. I think that you would get more people to read something like that than to attend a class. Just to be able to do that when a person had time to sit down and read it or whatever. (No. 16, great-aunt, age 47 years)

Maybe not a class but a group that you could ask if there's a way to do it better or anybody got any suggestions of what would work if it's not working for me. Just to know that Sally Smith down the street is doing the same thing who's raising her grandkids, so maybe I am doing something right. Maybe if you're raising your grandkids, you don't realize what's out there that wasn't available when you were raising your own kids. So a group that would get together every once in a while to put their heads together. (No. 11, grandmother, age 61 years)

## **Discussion**

The participants in our study were similar to the national and Kansas grandparent caregiver populations in the areas of marital status and parental circumstances. Our population was a little older, more economically disadvantaged, more rural, made up of more non-Hispanic whites, and had cared for the grandchildren longer than national and Kansas grandparent caregiver percentages.

Caregivers in the current study reported practices resulting from being more nutrition and food safety conscious with their second group of children. These findings may not be entirely related to the presence of grandchildren, however, since previous research showed that older adults tend to make different food choices as they age (Drewnowski & Schultz, 2001), including consuming higher amounts of fruit and vegetables than their younger counterparts (Sahyoun, Zhang, & Serdula, 2005). One of the largest barriers to eating a nutritious diet for older adults is social isolation (Sahyoun et al., 2005). With children in their households, skipped-generation homes have this barrier partially alleviated, which may result in more healthful food choices for these older adults and the children under their care. Since many of the caregivers we interviewed did not work outside the home, they were more available to monitor the children's food choices

and environments, which may have led to more healthful food and activity choices (Moag-Stahlberg, Miles, & Marcello, 2003)

An on-the-go lifestyle and children's use of more electronics were highlighted by the caregivers in our study as adversely affecting the children. Nutrition challenges resulting from an on-the-go lifestyle, such as the increased consumption of packaged foods and fast food reported by our participants, have been reported in a previous grandparent caregivers study (Kaplan et al., 2006). The caregivers' concerns about the increase in electronics resulting in two and a half hours per day of sedentary activity for their grandchildren are valid, since all but one household in our study exceeded the American Academy of Pediatrics' recommendation of no more than one to two hours of quality television programming per day (Bar-on et al., 2001) and because of the previously-reported positive correlation between screen time and childhood obesity (Matheson, Killen, Wang, Varady, & Robinson, 2004). Likewise, our caregivers' perceptions of the influence of television food ads on their grandchildren's food requests has been supported by previous research (Strasburger et al., 2006).

The finding that caregivers shifted their parenting style to be either more controlling or more relaxed may have important health implications for the children. Study findings point to the importance of balanced familial control of child food choices. Children who grow up in households in which food choices are too controlled or restrictive tend to overeat the restricted foods in excess, even when they are not hungry, when able to do so (Fisher & Birch, 2000). Similarly, children who grow up in households in which food choice is unregulated tend to be more likely to consume large amounts of soft drinks and sweets and fewer vegetables (Vereecken et al., 2004).

The primary sources of child feeding advice that the caregivers received when parenting the first time were from tradition, family, and/or a doctor, which corresponds to the primary sources reported in past research (Bruss, Morris, & Dannison, 2003). Grandparents in the current study reported that they tended to rely on their past parenting experiences when they were raising their second set of children, which supports the idea that their child feeding advice may be outdated. Further research is needed to determine if this is true, since our interviews did not examine this topic.

With their second generation of children, our participants' attitudes changed and they placed a higher value on healthful nutrition practices. This led to their increased willingness to

change food selection behaviors, including serving a bigger variety of foods and reading nutrition facts labels. Although older adults are less likely than younger consumers to change their shopping behaviors based on the nutrition facts labels, the more older consumers know about nutrition and understand the labels, the more effect the labels have on older adults' nutrition attitudes toward the products (Burton & Andrews, 1996). Thus, as nutrition facts labels become more familiar to the older population, these labels may begin to affect older consumers' purchasing practices, as implicated in our findings. Our findings that caregivers found fat, sugar, and sodium information on the nutrition facts labels to be the most helpful agree with findings from the 2007 Food and Health Survey of adults of all ages (International Food Information Council, 2007).

Our participants also placed a higher value on safe food handling than they did with their first set of children. For example, they now refrigerated leftovers immediately after meals instead of letting them cool on the counter. Since the attitudes of older adults towards food safety strongly correlate with their prevention practices (Altekruse, Street, Fein, & Levy, 1996; Hanson & Benedict, 2002), our study's findings concerning caregivers' attitudes about which food handling practices are most important have implications for the practices of the caregivers and can inform future food safety education. For example, the attitude we found that meat can be cooked safely without checking its internal temperature could be used as the basis for population-specific education.

We found that economic issues and attitudes concerning the costliness of healthful foods strongly influenced our caregivers' food shopping decisions. This finding is supported by previous caregiver studies (Kaplan et al., 2006; Kicklighter et al., 2007). Grandparent caregivers were more likely than other national family households to have incomes below the poverty level, with 20 percent meeting this criterion (U.S. Census Bureau, 2006). Many grandparents with insufficient financial resources who are raising their grandchildren decrease their grandchildren's food portion sizes at times (Serrano & Henderson, 2004). Nutrition educators must keep in mind the perceived financial barriers to making healthful dietary choices. In particular, since the attitude that "good food is expensive" is a recurring theme in older adult research, including caregiver research, educators should stress the viability of making inexpensive healthful meals (Jingxiong et al., 2007).

Because the majority of our caregivers believed they would not use nutrition education materials, further research is needed to determine if significant gaps exist in skipped-generation caregiver nutrition-related knowledge and practices which would lend credibility to the usefulness of future educational materials; and if so, to explore ways to market these materials in order to increase caregiver acceptance. Caregivers who were more open to the idea of nutrition education stated that the best way to disseminate the information was through written means and support groups. The emphasis on support groups as a preferred way to receive informational help and to relieve stress is congruent with other skipped-generation caregiver studies (Leder, Grinstead, & Torres, 2007; Hayslip & Kaminski, 2005).

### *Limitations*

This study examined a broad scope of nutrition-related practices and attitudes, from diet to food safety, which limited the study depth into any one area. Also, while qualitative research provides a detailed personal perspective and is important for exploratory research, it is limited by its descriptive nature. In addition, because the number of participants was small, the generalizability of the findings is limited.

### *Conclusions*

This study explored nutrition-related practices and attitudes of skipped-generation caregivers and their grandchildren via personal interviews. Compared to when they were parenting the first time, skipped-generation caregivers reported that they are more nutrition and food safety conscious. They described five changes in their practices, including serving a more nutritious variety of foods, reading nutrition facts labels, cooking more, storing foods properly, and keeping food preparation areas clean. The caregivers mentioned new challenges to their families eating a nutritionally balanced diet as a result of shifts toward an on-the-go lifestyle. An increased use of electronics by the children increased both their sedentary activity and their advertised food purchases. Many caregivers noted shifts in their parenting style, which influenced their child feeding practices. Our participants credited their child feeding knowledge primarily to tradition, family, a doctor, or, with the second generation, to past experiences. Caregivers placed more importance on nutrition and safe food handling practices than they had with the first generation of children. They perceived economic issues as a challenge to selecting healthful foods. Participants recommended that if nutrition education materials were developed



for this population, they should be distributed primarily through grandparent support groups, and should focus on nutrition as it relates to adolescents, sports, and healthful recipes and snack ideas. Based on their reported practices and attitudes, nutrition education should also include quick and inexpensive healthful meals that are low in fat, sugar, and salt; healthful fast food and packaged food options; the importance of checking the internal temperatures of meat when cooking; infant and child feeding; ways to feed “picky eaters;” benefits of eating together as a family; tips to limit children’s sedentary time; and intergenerational gardening and cooking.

## References

- Altekruse, S. F., Street, D. A., Fein, S. B., & Levy, A. S. (1996). Consumer knowledge of foodborne microbial hazards and food-handling practices. *Journal of Food Protection*, 59(3), 287-294.
- Bar-on, M. E., Broughton, D. D., Buttross, S. B., Corrigan, S., Gedissman, A., Gonzalez de Rivas, M. R., et al. (2001). Children, adolescents, and television. *Pediatrics*, 107(2), 423-426.
- Barton, S. J. (2001). Infant feeding practices of low-income rural mothers. *American Journal of Maternal/Child Nursing*, 26(2), 93-97.
- Bernhardt, J. M. & Felter, E. M. (2004). Online pediatric information seeking among mothers of young children: Results from a qualitative study using focus groups. *Journal of Medical Internet Research*, 6(1), e.7.
- Birch, L. L., & Davison, K. K. (2001). Family environmental factors influencing the developing behavioral controls of food intake and childhood overweight. *Pediatric Clinics of North America*, 48(4), 893-907.
- Birch, L. L., & Fisher, J. O. (1998). Development of eating behaviors among children and adolescents. *Pediatrics*, 101(3), 539-549.
- Bruss, M. B., Morris, J., & Dannison, L. (2003). Prevention of childhood obesity: Sociocultural and familial factors. *Journal of the American Dietetic Association*, 103(8), 1042-1045.
- Burton, S. & Andrews, J. C. (1996). Age, product nutrition, and label format effects on consumer perceptions and product evaluations. *Journal of Consumer Affairs*, 30(1), 68-89.

- Cooke, L. J., Wardle, J., Gibson, E. L., Sapochnik, M., Sheiham, A., & Lawson, M. (2004). Demographic, familial and trait predictors of fruit and vegetable consumption by pre-school children. *Public Health Nutrition*, 7(2), 295-302.
- Drewnowski, A., & Shultz, J. M. (2001). Impact of aging on eating behaviors, food choices, nutrition, and health status. *The Journal of Nutrition, Health and Aging*, 5(2), 75-79.
- Fisher, J. O., & Birch, L. L. (2000). Parents' restrictive feeding practices are associated with young girls' negative self-evaluation of eating. *Journal of the American Dietetic Association*, 100(11), 1341-1346.
- Gubrium, J. F., & Holstein, J. A. (Eds.). (2001). *Handbook of interview research: Context and method*. Thousand Oaks, CA: Sage Publications.
- Hanson, J. A., & Benedict, J. A. (2002). Use of the health belief model to examine older adults' food-handling behaviors. *Journal of Nutrition Education and Behavior*, 34(S1), S25-S30.
- Hayslip, B., & Kaminski, P. L. (2005). Grandparents raising their grandchildren: A review of the literature and suggestions for practice. *The Gerontologist*, 45(2), 262-269.
- International Food Information Council. (2007). *Food and health survey: Consumer attitudes toward food, nutrition, and health*. Retrieved October 9, 2007, from <http://www.ific.org/>
- Jingxiong, J., Rosenqvist, U., Huishan, W., Greiner, T., Guangli, L., & Sarkadi, A. (2007). Influence of grandparents on eating behaviors of young children in Chinese three-generation families. *Appetite*, 48(3), 377-383.
- Kaplan, M., Kiernan, N. E., & James, L. (2006). Intergenerational family conversations and decision making about eating healthfully. *Journal of Nutrition Education and Behavior*, 38(5), 298-306.

- Kicklighter, J. R., Whitley, D. M., Kelley, S. J., Shipskie, S. M., Taube, J. L., & Berry, R. C. (2007). Grandparents raising grandchildren: A response to a nutrition and physical activity intervention. *Journal of the American Dietetic Association, 107*(7), 1210-1213.
- Koplan, J. P., Liverman, C. T., & Kraak, V. I. (2005). Preventing childhood obesity: Health in the balance: Executive summary. *Journal of the American Dietetic Association, 105*(1), 131-138.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Leder, S., Grinstead, L. N., & Torres, E. (2007). Grandparents raising grandchildren: Stressors, social support, and health outcomes. *Journal of Family Nursing, 13*(3), 333-352.
- Matheson, D. M., Killen, J. D., Huishan, Y., Varady, A., & Robinson, T. N. (2004). Children's food consumption during television viewing. *The American Journal of Clinical Nutrition, 79*(6), 1088-1094.
- McDonald, T. P., & Brook, J. (2004). *Counting kids: Grandparents raising grandchildren: 2000 census brief #5*. Retrieved August 1, 2007, from [http://www.kac.org/docs/Census\\_Report\\_5.pdf](http://www.kac.org/docs/Census_Report_5.pdf)
- Moag-Stahlberg, A., Miles, A., & Marcello, M. (2003). What kids say they do and what parents think kids are doing: The ADAF/Knowledge networks 2003 family nutrition and physical activity study. *Journal of the American Dietetic Association, 103*(11), 1541-1546.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

- Ritchie, L., Welk, G., Styne, D., Gerstein, D., & Crawford, P. (2005). Family environment and pediatric overweight: What is a parent to do? *Journal of the American Dietetic Association, 105*(5), 70-79.
- Sahyoun, N. R., Zhang, X. L., & Serdula, M. K. (2005). Barriers to the consumption of fruits and vegetables among older adults. *Journal of Nutrition for the Elderly, 24*(4), 5-21.
- Serrano, E., & Henderson, T. (2004). Food security and health of grandparents raising grandchildren. *Journal of Nutrition Education and Behavior, 36*(S1), S35.
- Strasburger, V. C., Shifrin, D. L., Brown, A., Dreyer, B. P., Ginsburg, K. R., Milteer, R. M., et al. (2006). Children, adolescents, and advertising. *Pediatrics, 118*(6), 2563-2569.
- Tucker, L. A., Seljaas, G. T., & Hager, R. L. (1997). Body fat percentage of children varies according to their diet composition. *Journal of the American Dietetic Association, 97*(9), 981-986.
- Ulin, P. R., Robinson, E. T., & Tolley, E. E. (2005). *Qualitative methods in public health*. San Francisco, CA: Jossey-Bass.
- U.S. Census Bureau. (2006). *American fact finder*. Retrieved March 9, 2007, from <http://factfinder.census.gov>
- Vereecken, C. A., Keukelier, E., & Maes, L. (2004). Influence of mother's educational level on food parenting practices and food habits of young children. *Appetite, 43*(1), 93-103.

## **CHAPTER 5 - Additional Findings**

This qualitative study asked open-ended questions over a broad scope of topics; therefore, many themes emerged throughout the analysis process for each question asked. Although most of these areas were analyzed within the over-arching themes of nutrition-related practices and attitudes, there was not enough space in the journal manuscript to elaborate details. In addition, a few of the themes were omitted from the manuscript entirely because they are not directly related to nutrition. These non-nutrition themes are an important part of the current research study because they help provide a context to better understand the skipped-generation caregivers interviewed in this study. These data reflect the unique outlook of the population studied.

The additional findings have been grouped into three topic areas: population self-descriptors, diet-related practices and attitudes, and physical and nutrition-related leisure activities. These topic areas are made up of response categories which were content analyzed in order to develop themes.

### **Population Self-Descriptors**

The four categories in this topic area include the following: descriptions of child(ren), advice to other skipped-generation caregivers, challenges of caregiving, and advantages of caregiving.

#### ***Descriptions of Child(ren)***

Three themes emerged from the caregivers' descriptions of the children: normalcy, emotional baggage, and caregivers' pride in the children.

The first theme was derived from content analysis of caregiver statements and inferences that their grandchildren were just "normal" or "typical" children and that their lives had a thread of normalcy. Two examples include "just normal food" and "I'm sure you hear that a lot."

They're [my granddaughters] just little girls. Trying to understand at times why mom isn't here, but most of the time they're just like the rest of our kids were growing up. (No. 1, grandmother)

The second theme described the children as having emotional baggage because of their past and present circumstances. This emotional baggage was reported most commonly as manifesting itself in Attention Deficit Disorders requiring medications, and depression or anger.

He's [my grandson] got some problems: attention deficit, mood disorders, and oppositional defiance are the main ones. So it's very stressful whatever you want to say because if you say, "the sun comes up in the east," he's going to argue that the sun comes up in the west. (No. 11, grandmother)

In addition, several caregivers reported that their grandchildren were "slow" or have other disabilities because of past circumstances, such as maternal drug abuse or neglect.

The third theme emerged from comments that reflected the overwhelming sense of pride the caregivers possessed for the children. This pride was inferred from the caregivers who proudly listed their grandchildren's accomplishments and made statements such as, "I wish you could meet him. You'd love him." (No. 3, grandmother) The most common sources of pride for the caregivers included the children's talent (academic, athletic, musical) and their character ("good kid," politeness, determination, pleasant personality). Several of the caregivers also mentioned their pride in their grandchildren's looks. And nearly every caregiver either showed the interviewer a picture of their grandchildren or introduced them to her directly without the interviewer asking. Several caregivers spoke of their pride in their grandchildren explicitly.

She's a wonderful girl – she's just very special... She's a good kid. She's responsible, and I'm very proud of her. (No. 15, grandmother)

### *Advice to Other Skipped-Generation Caregivers*

Four themes emerged from the caregivers' responses to the question, "What advice would you offer to other grandparent or skipped-generation caregivers?" These themes include the following: love the children as your own, "uphold the biological parent's image" with respect, the importance of having faith in God, and an encouragement to "go for it."

The first theme, the advice to love the children as your own, encompassed a variety of recommendations that involved spending time with the children. Examples include time spent communicating, attending the children's activities, reading to the children, and eating together. Many caregivers stressed the need to love the children unconditionally to provide the stability and caring atmosphere that the children lacked when they were with their biological parents and/or in foster care.

As a grandparent raising kids, you have to understand these things, and to try to know how they feel. And to give them comfort, give them love. Or give them stability, that's the big thing, stability. Just teach them love. (No. 7, grandmother)

The second theme is to "uphold the biological parent's image" with respect, as much as possible. Many caregivers mentioned that although this has been a challenge, they feel that the children can and will draw their own conclusions. Several mentioned that they wanted the children to be on the best terms with the parent(s) in case the parents were able to resume the role of the primary caregiver. Other caregivers believed that the children's perception of their parents would influence their perceptions of themselves, so they wanted to be careful not to degrade the parents as people even though they were willing to speak out against the parents' actions when the children asked questions.

That's another thing that's important for grandparents raising their grandchild, or another relative's child, is to try to uphold the child's mother or parents as much they can, because I feel like in a lot of ways, if you run that person down, you're making that child feel guilty. Because they think somehow, it had to be their fault that all this happened in the first place. And you know when that mother or father may be able to come back and take that child and they may want to. And you don't want the child to have any



resentment toward the parent, before they ever get started because, believe me, they will draw their own conclusions quickly enough. (No. 10, grandmother)

The third theme was the importance of having faith in God, which was considered to be essential for both the children and the caregiver. One caregiver reported that one of the best things that has come from her taking on the responsibility of being the primary caregiver is that it caused her and her husband to return to church. Many caregivers believe their faith gets them through their circumstances.

The main advice I would give is to have a strong relationship with the Lord. I pray. It gets you through a lot. For me, it was strictly – is strictly – God that keeps me going. (No. 22, grandmother)

The fourth advice theme was an encouragement by many caregivers to “go for it,” “do it,” or “wing it.” The caregivers were open about the challenges but believed that overall their grandchildren were worth the struggles.

If you think you can do a better job, then I’d advise the grandparents do it. Some might not even think about raising them, but I think that if they needed to raise their grandchildren they should. Some people say, “No, I’ve already raised my kids.” But that’s not the way to be. But you’re going to have a lot of troubled kids if you shove them out the door. (No. 19, grandfather)

### ***Challenges of Caregiving***

The caregivers reported a long list of challenges. Four themes emerged: loss of energy, discipline, sacrifices, and responding to the biological parents.

The first theme, the challenge of not having enough energy, was reported by nearly every caregiver.

I think energy's the biggest problem now. He's [my great-grandson] so active. You try to go to all his track meets and run here and there and keep up with him like you did your other kids... You change as you get older and try to keep up with them.

(No. 5, great-grandmother)

You know that when you had your kids, you went to the zoo and you romped around. And you know that now you're 50, not 30. It does make a big difference. And I think that's the hardest part – we get older and it's harder. You just can't do the things you did before. (No. 21, grandmother)

Loss of energy was particularly challenging for caregivers who reported that as they aged, they had developed chronic health conditions. It was increasingly hard for them to keep up with the children. This led some caregivers to worry about how the children would be provided for in the event that they were unable to continue care because of their health declines or death.

I have a heart transplant and my health is not good. So it's hard to keep up with a hyperactive little boy when your health is not good. Probably three out of seven days you don't feel good. (No. 13, grandmother)

The second theme that emerged was discipline. Several caregivers mentioned that although it is challenging, for the children's benefit they have had to lovingly discipline them. Many caregivers believed that societal expectations of them had changed where disciplining their second set of children was concerned. Many mentioned that because of the shift in role from a grandparent to a parent, it is challenging to maintain appropriate discipline and not "spoil" the children.

Sometimes the grandma comes out though, after I've had to be really strict [with my grandson], and the grandma feels bad. Though it's for his own good. And he knows it.

(No. 3, grandmother)

The challenge of discipline was particularly stressed by caregivers who had teenagers. These caregivers reported they needed advice on how to discipline their teens and deal with all of those “puberty issues.” Caregivers struggled with finding a balance between not being too controlling, while still protecting their grandchildren. Many caregivers found themselves trying to undo poor patterns of behavior engrained into the children during time with their parents or time spent in foster care.

The older boy [my great-nephew], before he came here, when he was in kindergarten, he was expelled from school three times. When he was in foster care, he was in some trouble at school. When we first got him, we got him in March, and by the end of May when school was out, he had been to the principal’s office almost 10 times. And he thought that was acceptable behavior. So changing his mindset and getting him used to rules and consistency with rules has been probably the biggest challenge.

(No. 16, great-aunt)

The third theme of challenges, related to the caregivers making sacrifices, was very extensive. For example, challenging sacrifices made by the caregivers included giving up the traditional grandparent role and having less money, space, and time. Many caregivers mourned their loss of the carefree, spoiling role of the traditional grandparent that they had exchanged for the burdens of parenting a second time. Several of the single grandmothers expressed their struggle to be both a father and a mother to their grandchildren, particularly the grandmothers who had boys.

Having to be a father and mother both... I guess that’s our [my grandson and my] biggest challenge, but we didn’t realize it was going to be until he got bigger and needed to know how to work a car and stuff like that. I don’t know how to do any of that! (laughs)

(No. 12, grandmother)

Other sacrifices were identified. Several caregivers were still working, although they were past retirement age, in order to make “financial ends meet.” One grandparent caregiver couple reported that they no longer fit in with their peer group, which had been a challenge for

them. Many caregivers had not quite finished raising their own children before they started taking care of the second set, and sacrificed freedom from school schedules and time together alone.

We thought we were going to get a honeymoon when our last daughter graduates in May, but then we'll start [our granddaughter] in kindergarten in August. So we will start that whole process over. (No. 1, grandmother)

Overall, the caregivers had a fairly positive outlook on their sacrifices. As one of the caregivers stated, "We didn't always have everything we wanted, but we had everything we needed." (No. 22, grandmother)

A fourth challenge was responding to the biological parents. Although many of the caregivers did not have contact with them, some caregivers worried about the biological parents coming back into their grandchildren's lives and taking the children away to a bad home again. Three caregivers had "close calls" in which the parents wanted their children back, even though the children did not want to go. The majority of caregivers who were in touch with the biological parents mentioned the challenge of "dealing with" them.

Then just last year, when his mother was going to take him [my great-grandson], he threatened to kill himself, and he told her he was going to do that. So for that reason, I know everybody at some point in time is going to need some help, because sooner or later one parent's going to want this kid back, or they'll get their rehabilitation or whatever it is. (No. 14, great-grandmother)

Several caregivers struggled with emotions of anger or resentment towards the parents for treating their grandchildren poorly and/or leaving the task of parenting to them. More than any other emotion, though, the majority of caregivers hurt for the children involved and believed that the biological parents were missing out.

They [my grandchildren's parents] don't know what they're missing – I mean, we do all these little things that a parent should share with their kids. They missed it all, it's just not there. We had the privilege of going through it with them, but they didn't.

(No. 7, grandmother)

### *Advantages of Caregiving*

Two themes emerged from content analysis regarding the advantages of agreeing to take primary responsibility for the children: peace about preventing suboptimal care and the positive caregiver/child relationship.

The first theme consisted of the caregivers sharing that they had found peace, satisfaction, and strength from the knowledge that they were “doing the right thing” in providing their child relatives with a safe and viable alternative to their former sub-optimal homes or foster care.

Oh, the benefits are very many. For one thing in our situation, if we hadn't taken [our grandson], he would have been put in a foster home or somewhere. Our daughter and [our grandson's] dad were not able to raise him under the circumstances in their lives. I guess the benefit is to know your grandchild and really know your grandchild. Just those moments. Every mother, every grandparent has those moments when you just – it's just your reward. (No. 21, grandmother)

The second theme was the advantage of having a positive relationship with the children. Several caregivers stated that they were thankful for a second chance at parenting. Several mentioned the satisfaction and joy of watching the children grow and being able to enjoy one another. Many described the bonding between themselves and the children as the children becoming “a part of them” making it hard for them “to imagine life without them here.” With a few of the older children, the caregivers stated there was starting to be a slight role reversal, where the children were also looking after the caregivers themselves.

Well, when he [my grandson] first came to live with me, he needed a place to live really bad. I didn't know what I could do for him, but just know that he's loved. We kind of have a relationship where we always tell each other we love each other. And he's such a good kid that it's a joy to have him around. He's such a sweet kid that he's repaid me many times. So, it's just been the two of us and he looks after me. And it's gotten so it's kind of turned around. It used to be that I looked after him the most, but now he kind of looks after me, and I look after him. He changes all the light bulbs.

(No. 12, grandmother)

### **Diet-Related Practices and Attitudes**

The two categories in this topic area of diet-related practices and attitudes include overall dietary quality and dietary concerns. These findings are presented in more detail than in the journal manuscript.

#### ***Overall Dietary Quality***

The dietary analysis of the children's diet quality, as reported by their caregivers, was limited. However, positive practices and attitudes were identified. The majority of households ate diets that included a variety of foods from all of the food groups. Many caregivers stressed their belief that it is important to provide healthful food choice options for children, particularly for snacks. As a general rule, those caregivers who reported liking a variety of foods themselves and offering a range of healthful foods such as fruits and vegetables said that their grandchildren loved to grab these healthful foods as a snack, or ate the vegetables offered at meals alongside their caregivers.

I think a lot of that is because we've encouraged him [our grandson] to eat something that's a little more nutritious. He is not big on apples and stuff, but he will eat oranges. If I have oranges in the 'fridge, he'll grab a snack of an orange. And he likes grapes. So if he feels like a fruit snack he'll do something like that. And I'll try to have some of those things available, because I feel like if you have something available, they'll go ahead and eat it. But if it's not there, they're not going to go to the store and buy it for themselves. (No. 10, grandmother)

Some of the reported dietary practices were unhealthful. Compared to other caregivers' reports, households with teenage boys in this study had dietary recalls that were the worst nutritionally. Caregivers of these boys reported that their teens ate large amounts of fast foods, high fat snacks, and sugary beverages. They also reported that their boys consumed low amounts of vegetables and fruits, except for juice.

### *Dietary Concerns*

The category of dietary concerns was created from responses to the question, "Do you have any concerns about your child(ren)'s eating habits?" Two themes emerged as the main concerns through content analysis of the participants' answers to this question. Some caregivers were concerned about their children not eating enough food and/or were concerned about them eating too much of the wrong foods.

The first theme, children not eating enough food, included caregivers' concerns about the low body weight of the children and the children not eating appropriate amounts in general. Caregivers reported that some children did not eat very much because of past neglect or malnourishment, so they were small to begin with; some children were more interested in other activities rather than eating; and a few of the children were not hungry at certain meals as a side effect of their medications.

Now she's [my granddaughter] 25 pounds and almost four, so she's tiny. But I also saw [her sister] that way and fill out... But like I said, I'm not concerned as much as long as I know she's healthy and all of her family have been checked out. But they're [the Women, Infants, and Children Program] always concerned about the weight. And the more food I shove doesn't make a difference. My concern was getting the vitamins and minerals she needed... It concerned me that she wasn't gaining weight, because you could see her little ribs. (No. 20, grandmother)

The second theme included concerns about some of the children eating too much "junk" food, including foods high in fat such as fast foods, chips, and pizza, and foods high in sugar such as large amounts of soft drinks, sports drinks, energy drinks, and sweets.

Every once in a while I try to tell him [my grandson] he's eating too much junk but it doesn't do no good... if I don't think he's eating healthy enough or enough. He's just kind of hurrying though and not eating much, but that doesn't last long. It's not a long-time thing. I think he eats too much junk food, like McDonald's, every day, but what are you going to do? (No. 8, grandmother)

### **Physical and Nutrition-Related Leisure Activities**

Three themes emerged that could be categorized as physical activity or nutrition-related leisure activities from content analysis of responses to the question, "What are some of the children's favorite things to do?" These themes included the following: competitive sports, other daily physical activities, and gardening and cooking.

#### ***Competitive Sports***

The theme of competitive sports applied to the majority of the caregivers, since 74% of the households had children involved in competitive sports and 93% (14 of 15) of the children ages 12 years old and older participated in at least one competitive sport. Many caregivers mentioned their grandchildren's participation in competitive sports as a positive way to keep the kids physically active as well as to boost the self-esteem of the children.

Right now he's [my grandson] into basketball. He's into all that sports stuff. It's very important to him right now. He'll eat supper and then take off and run a few laps. He's getting motivated in life to do something with his body. He gets into weights, lifting them. He likes to exercise. (No. 17, grandmother)

However, a few caregivers mentioned disadvantages to the participation of their grandchildren in competitive sports, including that the children tended to push themselves too hard sometimes, and that sports had begun to get in the way of family life, such as eating together or spending time at home.

[My grandson's] in basketball, baseball. He was in track but I feel that with all the medication that he takes, when he would run he would get sick. He pushes himself to the



limit. He got gold medals, but it would make him sick, too. I said, “If you don’t want to run track, you don’t have to.” He said, “OK, then I’m not going to.”

(No. 7, grandmother)

During the summer one of them [my grandsons] plays baseball, the other plays basketball. The younger one was playing both and we told him he had to pick one or the other this year because we were gone four nights a week and it was too much. And we still are because he has baseball two times a week and the other one has basketball – his is on the weekends, Fridays and Saturdays, so we’re still going four days a week. But it keeps us going. [My grandson] likes to golf. They’re pretty well doing sports all the time. They keep us active, too. (No. 19, grandfather)

One of the great-grandmothers believed that there was too much emphasis on sports now days. She mentioned that her great-grandson was not physically capable of competing in sports because of his disability and she stated that his self-esteem was lower as a result of the over-emphasis in society on sports over all other activities.

### ***Other Daily Physical Activities***

Two sub-themes emerged from the theme of other daily physical activities: job-related activities and active play.

Several caregivers with older boys described their teenagers’ jobs as requiring physical activity. These jobs included mowing yards, construction, and farm work. A few of the teens had sought out physically active jobs to help condition themselves for sports.

He [my grandson] works for his grandpa who owns a lot of houses plus a farm. The other day he was out there raking hay, fencing, and rounding cattle up.

(No. 22, grandmother)

The second sub-theme, active play, was mentioned by nearly every caregiver as physical activities in which their grandchildren of all ages participated. These activities included organized play, such as non-competitive sports, and child games, such as tag, as well as just

running around outside, walking, swimming, dancing, or bicycling. Although all caregivers mentioned that their grandchildren spent time both in some form of physical activity and in some form of electronic sedentary activity, there were extremes, with some caregivers reporting that their grandchildren spent the majority of time being physically active versus other caregivers who reported that their grandchildren spent the majority of time being sedentary.

They're [my grandchildren] not stuck in front of the TV. They like to go over to the ball field and play ball. They just like to run and play the silly games. But they're active kids. Of course, during the school year, they have to be in school, but when they come home they're always outside playing. Sometimes they'll just walk. They'll say, "Can we walk around town?" I mean, you can walk around this town in 10 minutes. So sometimes they'll just go for a walk. Of course there're the neighborhood kids – they get together and play baseball, play basketball, play games. They're outside a lot, with lots of activity. (No. 7, grandmother)

### ***Gardening and Cooking***

Another theme emerged from content analysis of responses about the grandchildren's favorite activities: gardening and cooking.

The first sub-theme, gardening, was reported by several caregivers as one of their grandchildren's favorite things to do. In addition, several caregivers believed gardening to be an important skill for their grandchildren to learn. In addition, many of the caregivers not currently gardening talked about how they used to enjoy their own homegrown products, from meat to produce. Several also mentioned that they canned produce in the past or were doing so currently.

He [my grandson] loves to be outside. He's real strange. He loves to mow grass, he loves to garden, he loves to tinker with things. (No. 4, grandmother)

And we've [my granddaughter and I] moved to a place that has a fenced in yard, and so I would like to do a garden. I want her to see where the fruits and stuff come out of.

There's nothing like doing it and planting it, and then tasting your own tomatoes. My dad was a big gardener and I want her to have those feelings. (No. 20, grandmother)

The second sub-theme, cooking, arose from caregivers reporting that cooking was one of their grandchildren's favorite activities. Several caregivers mentioned the children finding pride in learning to cook either at home or at school. Many of the caregivers reported that as their grandchildren began to cook, it expanded the variety offered at the family's meals, which in some cases may have increased the healthfulness of the family's diet. For example, one child who did not like protein foods very much learned to make an omelet from a University Extension agent who came to his school. After learning this skill, omelets became one of the child's favorite foods.

He [my grandson] loves to cook eggs. The Extension agent taught him how to cook an omelet so he likes to cook omelets for people. And he doesn't like mushrooms, so he'll not put mushrooms in it, but he will put chopped green peppers in it and things like that. (No. 4, grandmother)

## CHAPTER 6 - Summary and Conclusions

The number of children being raised by a grandparent or other older adult skipped-generation caregiver is growing within the state of Kansas and at the national level (U.S. Census Bureau, 2006). Along with the increasing prevalence of grandparent caregivers is an increasing amount of research specific to this population group. Although much research has been conducted in recent years about the emotional, financial, familial, psychological, and legal implications for these skipped-generation households, little research has been published concerning nutrition-related practices and attitudes of these older adults and the children in their care.

Unlike new parents who may actively seek current child feeding recommendations and advice from the healthcare community (Barton, 2001; Bernhardt & Felter, 2004), grandparents raising their grandchildren may believe they have adequate information since they have already raised a child(ren). Consequently, many grandparent caregivers may rely on old advice based on outdated research, not realizing that some nutrition-related recommendations have remained constant over time, while others have changed dramatically.

Nutrition education materials tailored to skipped generation households could help bridge the gap between past knowledge and practices and current recommendations. Knowledge of the nutrition-related practices and attitudes of this target group could lay the foundation for educational material development.

Accordingly, the current study used a qualitative approach to answer the research question, “What are the nutrition-related practices and attitudes of Kansas older adult grandparents or other skipped-generation caregivers and the children under their care?” In-depth, face-to-face interviews, approximately one hour each, were conducted with caregivers who were 45 years of age or older, living in Kansas, and the sole caregiver for their grandchild(ren) or another skipped-generation child relative under the age of 18 years. The interviewer used a semi-structured guide and asked questions on a range of topics from diet to food safety. (See Appendix A.) Main questions were followed up by detail-oriented, elaboration, and clarification probes when appropriate.

Interviews were recorded on audiotape and transcribed verbatim. Transcribed quotes were sorted categorically according to the researchers' primary questions and additional emerging categories. The categorized quotes were then coded. Pattern recognition and repetition were used to identify themes (Patton, 2002). Data analysis incorporated the triangulation technique of peer debriefing by research team members throughout the study for increased credibility (Patton, 2002).

Descriptive statistics were used for demographic variables and questions that received "yes" or "no" answers. These statistics were obtained using Microsoft Excel (Microsoft Office, 2003).

## **Major Findings**

Twenty-three skipped-generation caregivers representing 19 households were interviewed for this study (4 male and 19 female). The participants in our study were similar to the national and Kansas grandparent caregiver populations in the areas of marital status and parental circumstances. Our population was a little older, more economically disadvantaged, made up of more non-Hispanic whites, and had cared for the grandchildren longer than national and Kansas grandparent caregiver percentages. A table of the caregivers' and children's characteristics can be found in Appendix B. A map of the participants' counties, including residents per square mile (rpsm), is shown in Appendix C.

Five themes emerged regarding nutrition-related practices: caregivers are more nutrition and food safety conscious now, their families' on-the-go lifestyles reduce healthful eating, the children's use of more electronics increases sedentary activities, caregivers have shifted their parenting styles, and sources of child feeding advice are based on tradition. Regarding nutrition-related attitudes, the three themes that emerged from content analysis of responses were the following: nutrition and safe food handling are important, food and economics, and population-specific nutrition education materials.

All but one grandparent described practices that showed they were more nutrition and food safety conscious with raising their second generation of children than their first. These practices included providing a more nutritious variety of foods in the diet, reading the nutrition facts labels on packaged foods, cooking more from "scratch" rather than from packages, storing foods properly, and keeping food areas clean during preparation. Caregivers most commonly

attributed their improved awareness to having more time to plan meals and cook, more financial resources, and more information about nutrition and food safety.

Although most caregivers reported many healthful changes in raising their second set of children, these skipped-generation households as a whole reported some less healthful changes because of the shift in society towards a busy, on-the-go lifestyle. Some of these less healthful shifts included the increased availability and consumption of packaged foods and fast food, and less of their own farm-raised food. Households with teenage boys with driver's licenses seemed to eat the least healthfully because of the irregularity of the boys' schedules. These boys had an almost daily consumption of fast foods and consumed higher amounts of "junk" snack foods than their younger counterparts.

The use of electronic devices increased between generations, leading to an increase in children's sedentary activities including watching television, playing video games, and playing on the computer. The children had an average of two and a half hours per day of "screen time," which exceeds that recommended by the American Academy of Pediatrics (Bar-on et al., 2001). In addition, several caregivers noted that advertisements, both on television and the internet, caused them or their grandchildren to purchase foods they would not otherwise have purchased.

Caregivers reported shifts in their parenting styles between generations that affected their child feeding practices. Two main types of shifts in parenting style emerged. The first shift was characterized as being more relaxed and indulgent with the second generation, which included allowing the children to be "picky eaters," allowing too many "junk" foods, and eating meals in front of the television or separately rather than as a family. The second shift was characterized as being more involved in feeding, which included scheduled meals together at the table, and being more nutrition-conscious compared to the other caregivers.

The caregivers' most common sources of child feeding advice with the first generation of children were tradition, family and/or a doctor. The majority of caregivers reported that they did not seek additional sources of nutrition advice for raising the second generation; rather, they relied primarily on their past parenting experiences.

Many caregivers noted that their attitudes toward nutrition and child feeding shifted between generations from simply eating to obtain energy toward the goal of eating to obtain nutrients through a balanced diet in order to avoid chronic diseases. Caregivers placed a higher value now on serving a variety of foods and choosing foods with less fat, sugar, and salt for their

households. Regarding attitudes toward safe food handling, the majority conveyed beliefs that storing food properly, checking food expiration dates, cleaning food preparation areas, washing produce, and cooking foods properly are important.

The majority of caregivers believed that it is expensive to eat nutritiously. Many caregivers reported they were making monetary sacrifices to eat more healthfully. The majority of caregivers reported that price influenced not only what they bought but also where they shopped.

Most caregivers stated that they would not use nutrition education materials tailored to them because they already knew what to do or were not willing to make changes. However, six caregivers said they would be interested in nutrition education materials tailored to them. Some of the most common suggestions for these materials included information on nutrition as it relates to adolescents, sports, and healthful recipes and snack ideas. The majority of caregivers stated that brochures or newsletters were more likely to be used than classes, and stressed that the best way to distribute the information would be through grandparent support groups.

### **Other Findings**

Themes emerged beyond those mentioned as major themes. Also, details emerged in the diet-related theme that could not be elaborated on in the limited space of the journal manuscript. These findings have been grouped into three topic areas: population self-descriptors, diet-related practices and attitudes, and physical and nutrition-related leisure activities.

Caregivers described their grandchildren as “normal” and conveyed a sense of pride in the children although they reported that many of the children had emotional baggage. Caregivers’ advice for other skipped-generation caregivers was as follows: love the children as your own; “uphold the biological parent’s image” with respect; have faith in God; and “go for it.” Caregivers described a loss of energy because of aging, disciplining the children, monetary and other sacrifices, and responding to the biological parents as their greatest caregiving challenges. However, they also reported advantages to caregiving, particularly the peace that came from the knowledge that they were preventing suboptimal care for the children and their positive relationships with the children.

Dietary analysis of the children’s diet quality, as reported by their caregivers, identified positive practices and attitudes as well as unhealthful practices. The majority of households ate

diets that included a variety of foods from all of the food groups. Many caregivers stressed their belief that it is important to provide healthful food choice options for children, particularly for snacks. However, compared to other caregivers' reports, teenage boys had diets high in fat and sugar and low in vegetables and fruits, except for juice. Caregivers reported two main concerns about their grandchildren's eating habits: a concern that their child was not eating enough food and/or a concern that their child was eating too many "junk" foods high in fat and sugar.

Caregivers reported that their grandchildren participated in a range of physical and nutrition-related leisure activities. Seventy-four percent of the households had at least one child involved in competitive sports. Many of the caregivers commented on the health and self-esteem advantages of the children's involvement in these sports. The main disadvantage of competitive sports was the time commitment, which took away from family life. In addition to competitive sports, the children were physically active through their jobs or in their play time. Nutrition-related leisure activities included the participation of the children in gardening and cooking, which were reported to be some of the children's favorite activities.

### **Limitations**

This study examined a broad scope of nutrition-related practices and attitudes, from diet to food safety, which limited the study depth into any one area. For example, we obtained a general overview of the children's diet qualities, but because of time constraints, the recalls used were not as detailed as a typical 24 hour diet recall which includes portion sizes. Also, while qualitative research provides a detailed personal perspective and is important for exploratory research, it is limited by its descriptive nature. In addition, because the number of participants was small, the generalizability of the findings is limited.

### **Conclusions and Implications**

Based on our findings of practices and attitudes, nutrition education for this group may need to include the following: infant, child, adolescent, and sports nutrition; healthful recipes and snack ideas; quick and inexpensive healthful meals that are low in fat, sugar, and salt; healthful fast food and packaged food options; the importance of checking the internal temperatures of meat when cooking; ways to feed "picky eaters;" benefits of eating together as a family; tips to limit children's sedentary time; and intergenerational gardening and cooking. Participants



recommended that if nutrition education materials were developed for this population, they should be distributed primarily through grandparent support groups. As the number of grandparent support groups increase concurrent with the increase of this population, nutrition educators should consider providing assistance to skipped-generation caregivers within this network, since support groups were reported to be one of the few sought-after sources of help by our participants.

This study provides a foundation for future research on the nutrition-related practices and attitudes of the skipped-generation population. The findings of this exploratory study helped identify nutrition education areas that may be beneficial to explore in more depth. These findings could be used along with future qualitative and quantitative studies to develop curricula that include nutrition information tailored to the needs of the skipped-generation caregiver populations. For example, future curricula could bring skipped-generation caregivers up to date on current nutrition-related pediatric and adolescent feeding recommendations. This could lead to changes in older caregivers' practices and attitudes that would increase the children's overall wellness status and thus, their quality of life, and make the task of parenting a second time a little less burdensome.

### **Recommendations for Further Study**

Because the majority of our caregivers believed they would not use nutrition education materials, further research is needed to determine if significant gaps exist in skipped-generation caregiver nutrition-related knowledge and practices which would lend credibility to the usefulness of future educational materials; and if so, to explore ways to market these materials in order to increase caregiver acceptance.

Other areas for further study could include the following:

- Examining the diet quality of the grandparents who are raising their grandchildren as compared to older adults in general.
- Examining the diet quality of children raised by skipped-generation older adults compared to children raised in a conventional family.
- Examining particular skipped-generation caregiver nutrition-related philosophies including, but not limited to, their philosophies on using food as a reward,

keeping sweets around the house, having the television on during mealtimes, and eating together.

- Examining the food shopping behaviors of skipped-generation caregivers.
- Examining the role and effectiveness of grandparent support groups in disseminating nutrition education.
- Examining the correlation between the caregivers' feeding practices and attitudes and their body weights, as well as the weights of the children.
- Examining the caregivers' nutrition-related knowledge to see if they are up to date on pediatric and adolescent feeding recommendations.
- Using qualitative methods to more specifically examine changes in the nutrition practices and attitudes between parenting the first time and parenting the second time.
- Using qualitative methods to more precisely describe current practices and attitudes of the skipped-generation caregivers and the children under their care in any one of the specific areas of diet, physical activity, food safety or nutrition education.
- Using quantitative methods to verify the qualitative findings of this study.

## References

- Altekruse, S. F., Street, D. A., Fein, S. B., & Levy, A. S. (1996). Consumer knowledge of foodborne microbial hazards and food-handling practices. *Journal of Food Protection*, 59(3), 287-294.
- American Heart Association, Gidding, S. S., Dennison, B. A., Birch, L. L., Daniels, S. R., Gilman, M. W., et al. (2006). Dietary recommendations for children and adolescents: A guide for practitioners. *Pediatrics*, 117(2), 544-559.
- Baker, S. S., Cochran, W. J., Greer, F. R., Heyman, M. B., Jacobson, M. S., Jaksic, T., et al. (2001). The use and misuse of fruit juice in pediatrics. *Pediatrics*, 107(5), 1210-1213.
- Bar-on, M. E., Broughton, D. D., Buttross, S. B., Corrigan, S., Gedissman, A., Gonzalez de Rivas, M. R., et al. (2001). Children, adolescents, and television. *Pediatrics*, 107(2), 423-426.
- Barton, S. J. (2001). Infant feeding practices of low-income rural mothers. *American Journal of Maternal/Child Nursing*, 26(2), 93-97.
- Bernhardt, J. M. & Felter, E. M. (2004). Online pediatric information seeking among mothers of young children: Results from a qualitative study using focus groups. *Journal of Medical Internet Research*, 6(1), e.7.
- Birch, L. L., & Davison, K. K. (2001). Family environmental factors influencing the developing behavioral controls of food intake and childhood overweight. *Pediatric Clinics of North America*, 48(4), 893-907.

- Birch, L. L., & Fisher, J. O. (1998). Development of eating behaviors among children and adolescents. *Pediatrics*, *101*(3), 539-549.
- Britten, N. (1995). Qualitative research: Qualitative interviews in medical research. *British Medical Journal*, *311*(6999), 251-253.
- Bruss, M. B., Morris, J., & Dannison, L. (2003). Prevention of childhood obesity: Sociocultural and familial factors. *Journal of the American Dietetic Association*, *103*(8), 1042-1045.
- Burnette, D. (1999). Custodial grandparents in Latino families: Patterns of service use and predictors of unmet needs. *Social work*, *44*(1), 22-34.
- Burton, S. & Andrews, J. C. (1996). Age, product nutrition, and label format effects on consumer perceptions and product evaluations. *Journal of Consumer Affairs*, *30*(1), 68-89.
- Butler, F. R., & Zakari, N. (2005). Grandparents parenting grandchildren: Assessing health status, parental stress, and social supports. *Journal of Gerontological Nursing*, *31*(3), 43-54.
- Cooke, L. J., Wardle, J., Gibson, E. L., Sapochnik, M., Sheiham, A., & Lawson, M. (2004). Demographic, familial and trait predictors of fruit and vegetable consumption by pre-school children. *Public Health Nutrition*, *7*(2), 295-302.
- Cullen, K. W., Baranowski, T., Rittenberry, L., Cosart, C., Hebert, D., & de Moor, C. (2001). Child-reported family and peer influences on fruit, juice and vegetable consumption: Reliability and validity of measures. *Health Education Research*, *16*(2), 187-200.
- Davidhizar, R., Bechtel, G. A., & Woodring, B. C. (2000). The changing role of grandparenthood. *Journal of Gerontological Nursing*, *26*(1), 24-29.

- Drewnowski, A., & Shultz, J. M. (2001). Impact of aging on eating behaviors, food choices, nutrition, and health status. *The Journal of Nutrition, Health and Aging*, 5(2), 75-79.
- Fiocchi, A., Assa'ad, A., & Bahna, S. (2006). Food allergy and the introduction of solid foods to infants: A consensus document. *Annals of Allergy, Asthma and Immunology*, 97(1), 10-21.
- Fisher, J. O., & Birch, L. L. (2000). Parents' restrictive feeding practices are associated with young girls' negative self-evaluation of eating. *Journal of the American Dietetic Association*, 100(11), 1341-1346.
- Fuller, H. G., Hsu, A., Mandelkorn, N. L., O'Shaughnessy, S., & Tiller, M. B. (Eds.). (2001). *Fundamentals of moderating*. Bethesda, MD: RIVA Training Institute.
- Gartner, L. M., Eidelman, A. I., Morton, J., Lawrence, R. A., Naylor, A. J., O'Hare, D., et al. (2005). Breastfeeding and the use of human milk. *Pediatrics*, 115(2), 496-506.
- Gubrium, J. F., & Holstein, J. A. (Eds.). (2002). *Handbook of interview research: Context and method*. Thousand Oaks, CA: Sage Publications.
- Guzzi, M., & Nebeker, J. (2005). *Merriam-Webster online dictionary*. Retrieved April 16, 2007, from <http://www.m-w.com>
- Hamm, M. W., Schnaak, M. D., & Janas, B. G. (1995). Nutrition knowledge and attitudes of hotel and restaurant management students. *Journal of the American Dietetic Association*, 95(1), 1158-1159.
- Hanson, J. A., & Benedict, J. A. (2002). Use of the health belief model to examine older adults' food-handling behaviors. *Journal of Nutrition Education and Behavior*, 34(S1), S25-S30.

- Hayslip, B., & Kaminski, P. L. (2005). Grandparents raising their grandchildren: A review of the literature and suggestions for practice. *The Gerontologist, 45*(2), 262-269.
- Hollis, J. F., Carmody, T. P., Connor, S. L., Fey, S. G., & Matarazzo, J. D. (1986). The nutrition attitude survey: Associations with dietary habits, psychological and physical well-being, and coronary risk factors. *Health Psychology, 5*(4), 359-374.
- International Food Information Council. (2007). *Food and health survey: Consumer attitudes toward food, nutrition, and health*. Retrieved October 9, 2007, from <http://www.ific.org/>
- James, D. C. (2004). Factors influencing food choices, dietary intake, and nutrition-related attitudes among African Americans: Application of a culturally sensitive model. *Ethnicity and Health, 9*(4), 349-367.
- Jingxiong, J., Rosenqvist, U., Huishan, W., Greiner, T., Guangli, L., & Sarkadi, A. (2007). Influence of grandparents on eating behaviors of young children in Chinese three-generation families. *Appetite, 48*(3), 377-383.
- Johnson, D. B., Gerstein, D. E., Evans, A. E., & Woodward-Lopez, G. (2006). Preventing obesity: A life cycle perspective. *Journal of the American Dietetic Association, 106*(1), 97-102.
- Kaplan, M., Kiernan, N. E., & James, L. (2006). Intergenerational family conversations and decision making about eating healthfully. *Journal of Nutrition Education and Behavior, 38*(5), 298-306.
- Kataoka-Yahiro, M., Ceria, C., & Caulfield, R. (2004). Grandparent caregiving role in ethnically diverse families. *Journal of Pediatric Nursing, 19*(5), 315-328.

- Kicklighter, J. R., Whitley, D. M., Kelley, S. J., Shipskie, S. M., Taube, J. L., & Berry, R. C. (2007). Grandparents raising grandchildren: A response to a nutrition and physical activity intervention. *Journal of the American Dietetic Association, 107*(7), 1210-1213.
- Koplan, J. P., Liverman, C. T., & Kraak, V. I. (2005). Preventing childhood obesity: Health in the balance: Executive summary. *Journal of the American Dietetic Association, 105*(1), 131-138.
- Krebs, N. F., Jacobson, M. S., Baker, R. D., Greer, F. R., Heyman, M. B., Jaksic, T. et al. (2003). Prevention of pediatric overweight and obesity. *Pediatrics, 112*(2), 424-430.
- Krippendorff, K. (2004). *Content analysis: An introduction to its methodology* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Leder, S., Grinstead, L. N., & Torres, E. (2007). Grandparents raising grandchildren: Stressors, social support, and health outcomes. *Journal of Family Nursing, 13*(3), 333-352.
- Levine, B. S., Wigren, M. M., Chapman, D. S., Kerner, J. F., Bergman, R. L., & Rivlin, R. S. (1993). A national survey of practices and attitudes of primary-care physicians relating to nutrition: Strategies for enhancing the use of clinical nutrition in medical practice. *The American Journal of Clinical Nutrition, 57*(2), 115-119.
- Li, R., Serdula, M., Bland, S., Mokdad, A., Bowman, B., & Nelson, D. (2000). Trends in fruit and vegetable consumption among adults in 16 US states: Behavioral risk factor surveillance system, 1990-1996. *American Journal of Public Health, 90*(5), 777-781.
- MacDougall, C., & Fudge, E. (2001). Planning and recruiting the sample for focus groups and in-depth interviews. *Qualitative Health Research, 11*(1), 117-126.

- Matheson, D. M., Killen, J. D., Wang, Y., Varady, A., & Robinson, T. N. (2004). Children's food consumption during television viewing. *The American Journal of Clinical Nutrition*, 79(6), 1088-1094.
- McDonald, T. P., & Brook, J. (2004). *Counting kids: Grandparents raising grandchildren: 2000 census brief #5*. Retrieved August 1, 2007, from [http://www.kac.org/docs/Census\\_Report\\_5.pdf](http://www.kac.org/docs/Census_Report_5.pdf)
- Moag-Stahlberg, A., Miles, A., & Marcello, M. (2003). What kids say they do and what parents think kids are doing: The ADAF/Knowledge networks 2003 family nutrition and physical activity study. *Journal of the American Dietetic Association*, 103(11), 1541-1546.
- Nahikian-Nelms, M. (1997). Influential factors of caregiver behavior at mealtime. *Journal of the American Dietetic Association*, 97(5), 505-509.
- Nuss, H., Clarke, K., Klohe-Lehman, D., & Freeland-Graves, J. (2006). Influence of nutrition attitudes and motivators for eating on postpartum weight status in low-income new mothers. *Journal of the American Dietetic Association*, 106(11), 1774-1782.
- Patton, M. Q. (2002). *Qualitative research & evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.
- Phillips, S., & Bloom, B. (1998). In whose best interest? The impact of changing public policy on relatives caring for children with incarcerated parents. *Child Welfare*, 77(5), 531-541.
- Ritchie, L., Welk, G., Styne, D., Gerstein, D., & Crawford, P. (2005). Family environment and pediatric overweight: What is a parent to do? *Journal of the American Dietetic Association*, 105(5), 70-79.
- Rubin, H. J., & Rubin, I. S. (2005). *Qualitative interviewing: The art of hearing data* (2nd ed.). Thousand Oaks, CA: Sage Publications.



- Sahyoun, N. R., Zhang, X. L., & Serdula, M. K. (2005). Barriers to the consumption of fruits and vegetables among older adults. *Journal of Nutrition for the Elderly*, 24(4), 5-21.
- Serrano, E., & Henderson, T. (2004). Food security and health of grandparents raising grandchildren. *Journal of Nutrition Education and Behavior*, 36(S1), S35.
- Smiciklas-Wright, H., Mitchell, D. C., Mickle, S. J., Goldman, J. D., & Cook, A. (2003). Foods commonly eaten in the United States, 1989-1991 and 1994-1996: Are portion sizes changing? *Journal of the American Dietetic Association*, 103(1), 41-47.
- Sobal, J. (2001). Sample extensiveness in qualitative nutrition education research. *Journal of Nutrition Education*, 33(4), 184-192.
- Spock, B. (1968). *Baby and child care* (3rd ed.). New York: Hawthorn Books, Inc.
- Spock, B., & Parker, S. J. (1998). *Dr. Spock's baby and child care* (7th ed.). New York: Pocket Books.
- Strasburger, V. C., Shifrin, D. L., Brown, A., Dreyer, B. P., Ginsburg, K. R., Milteer, R. M., et al. (2006). Children, adolescents, and advertising. *Pediatrics*, 118(6), 2563-2569.
- Strom, R., Strom, S., Collinsworth, P., Strom, P., & Griswold, D. (1996). Black grandparents: Curriculum development. *International Journal of Aging and Human Development*, 43(2), 119-134.
- Tucker, L. A., Seljaas, G. T., & Hager, R. L. (1997). Body fat percentage of children varies according to their diet composition. *Journal of the American Dietetic Association*, 97(9), 981-986.

Ulin, P. R., Robinson, E. T., & Tolley, E. E. (2005). *Qualitative methods in public health*. San Francisco, CA: Jossey-Bass.

U.S. Census Bureau. (2006). *American fact finder*. Retrieved March 9, 2007, from <http://factfinder.census.gov>

Vereecken, C. A., Keukelier, E., & Maes, L. (2004). Influence of mother's educational level on food parenting practices and food habits of young children. *Appetite*, 43(1), 93-103.

Wardle, J., Carnell, S., & Cooke, L. (2005). Parental control over feeding and children's fruit and vegetable intake: How are they related? *Journal of the American Dietetic Association*, 105(2), 227-232.

Women, Infants, and Children Program. (2007). *WIC works resource system*. Retrieved April 1, 2007, from <http://www.nal.usda.gov/wicworks/Topics/index.html>

## **Appendix A - Interview Guide**

Nutrition-Related Practices and attitudes of Kansas Older Adult Relative Caregivers and  
the Children under Their Care

**Face to Face Interview Guide**

*ID # of Participant* \_\_\_\_\_

*Name of County:* \_\_\_\_\_

*Date of Interview:* \_\_\_\_\_

*Time of Interview: Begin:* \_\_\_\_\_

*Two Informed Consent forms signed? Yes* \_\_\_\_\_

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**[Introduction]:**

Thank subject for participation in this study. Remind participant of current benefits (\$15 incentive) and future benefits (knowledge to be used to develop nutrition educational materials specific to older adult relative caregivers).

Reminder that there are no “wrong or right” answers... all answers will help University Extension to provide more helpful materials to people like you.

**I. [Background Circumstances]**

1. Let's start by talking about the kids you are primarily responsible for. Can you briefly describe the children?
  - a. Number
  - b. Age and gender of children
  - c. Disabilities or other things mentioned

2. What advice would you offer to other grandparent caregivers?
3. What have been the biggest challenges to you as a grandparent caregiver?
4. Please briefly describe the circumstances behind your becoming the primary caregiver of the child(ren).
  - a. Parental circumstance (death, neglect, etc.)
  - b. Length of caring for the children

## **II. [Nutrition-Related Attitudes]**

1. Food has many functions or roles in our lives. What roles does food play in the child(ren)'s life? (if stumped ex. entertainment)
  - a. Punishment/reward?
  - b. Comfort?
  - c. Entertainment?
2. Do you have any concerns about the child(ren)'s eating habits?
3. What would you say are the main things that influence your food shopping decisions when you are buying food?
  - a. Price?
  - b. Nutrition?
  - c. Nutrition facts label?
  - d. Personal preferences?
  - e. Child(ren)'s likes and dislikes?
  - f. Quality?

### **III. [Nutrition Education Experiences]**

1. What were the most helpful sources of nutrition advice when you parented the first time? (if stumped- did you ask someone or read something?)
2. What are the most helpful sources of nutrition advice now that you are parenting for the second time?
3. What kinds of nutrition education have been helpful in the past or are currently helpful?
  - a. If classes, specify
4. Are there any nutrition-related topics you would have liked to have had information on in the past?
5. Are there any nutrition-related topics you would like information on now or for the future?

### **IV. [Nutrition-Related Practices-Eating, Physical Activity, & Food Safety]**

1. Let's talk about what the youngest grandchild (or grandchild age least studied) eats on a typical day.
  - a. What is the first thing the child typically eats...
  - b. Any other snacks?
  - c. Beverages?
2. What are the child(ren)'s favorite foods?
  - a. Grains?
  - b. Meat?
  - c. Fruits?
  - d. Vegetables?
  - e. Dairy?
  - f. Sweets?

3. Where do the children typically eat?
  - a. At home?
    - i. Family-style meals?
    - ii. Take out?
    - iii. TV?
  - b. At school?
  - c. At daycare?
  - d. Dining out?
    - i. Frequency?
    - ii. Favorites?
  
4. Where are the food, snacks & beverages for you and the child(ren) obtained or purchased?
  - a. Grocery store?
    - i. Do you have a Vision card?
  - b. Commodities?
  - c. WIC?
  - d. Food pantry?
  - e. Convenience store?
  - f. Vending machines?
  
5. Let's discuss some differences in some of the practices we just talked about concerning feeding your grandchild(ren) compared to what you did when you raised your children (parented the first time around)?
  
6. If the child(ren) spend time with their biological parents, how do feeding practices that we just talked about differ?
  
7. What are some of the child(ren)'s favorite things to do?
  
8. What kinds of physical activity do the child(ren) participate in?
  - a. Walking or biking to school?
  - b. Playing outside?
  - c. How often for each?

9. What kinds of things do you do to try to make sure your food is safe to eat? (if stumped- to reduce the number of germs in your food?)
- e. Clean-hand washing, rinsing foods & surfaces?
  - f. Separate- storage & prep of raw and ready-to-serve foods?
  - g. Cook- checking food temperatures?
  - h. Chill- refrigerating leftovers & cold foods soon after shopping?

## V. [Demographics]

### 1. Asked Interviewee Information

- a. Age\_\_\_\_\_
  
- b. Household membership
  - i. Adults\_\_\_\_\_
  - ii. Children\_\_\_\_\_
  
- c. Which racial group do you most identify with?
  - i. *Caucasian*
  - ii. *Black/African American*
  - iii. *Asian*
  - iv. *Native American*
  - v. *Other*\_\_\_\_\_
  
- d. Do you consider yourself Hispanic or Latino?

### 2. Observed Interviewee Information

- a. *Female*                      *Male*
  
- b. *Sufficient Income*      *Limited Income*
  
- c. *Urban*    *Semi Urban*    *Densely-settled Rural*    *Rural*    *Frontier*



**VI. Usefulness of materials**

1. Do you think grandparents would use nutrition-education materials designed specifically for them?
2. Do you think grandparents raising grandchildren would attend these nutrition education classes?
3. Do you think these materials would be helpful?
  - a. Fast & easy on a budget
  - b. Cooking with children
  - c. Physical activities to do with grandchildren
  - d. Eating together

**VII. Is there anything else about the study you would like to know or say?**

*Time of Interview: End:\_\_\_\_\_*

## **Appendix B - Caregiver Table**

**Table B.1: Caregiver & Child Characteristics**

<u>Characteristic</u>	<u>n</u>	<u>Percentage</u>	<u>Average</u>	<u>Range</u>
<b>Caregiver</b>				
<i>Age</i>			62 years	47-80 years
<b>Marital Status</b>				
<i>Married</i>	16	70%		
<b>Gender</b>				
<i>Male</i>	4	17%		
<i>Female</i>	19	83%		
<b>Race &amp; Ethnicity</b>				
<i>White, non-Hispanic</i>	21	92%		
<i>White, Hispanic</i>	1	4%		
<i>Native American</i>	1	4%		
<b>Child</b>				
<i>Age</i>			12 years	3-18 years
<b>Gender</b>				
<i>Male</i>	17	68%		
<i>Female</i>	8	32%		
<b>Race &amp; Ethnicity</b>				
<i>White, non-Hispanic</i>	14	56%		
<i>White, Hispanic</i>	3	12%		
<i>Mixed</i>	8	32%		
<b>Household Membership</b>				
<i>Total</i>			3 people	2-10 people
<i>Adults</i>			2 adults	1-3 adults
<i>Children</i>			2 children	1-7 children
<i>Number of skipped-generation children for which caregiver was primarily responsible</i>			1 child	1-4 children

<b><i>Caregiver's Relationship to Child(ren)</i></b>				
<i>Grandparent</i>	18	78%		
<i>Great Grandparent</i>	3	13%		
<i>Great Aunt</i>	2	9%		
<b><i>Length of Care</i></b>			9 years	<1-18 years
<b><i>Households Receiving Governmental Monetary Assistance</i></b>				
<i>Yes</i>	7	37%		
<i>No</i>	12	63%		
<b><i>Population Density of Household Residence</i></b>				
<i>Urban (&gt;150.0 residents per square mile, rpsm)</i>	2	11%		
<i>Semi-urban (40.0-149.9 rpsm)</i>	0	0%		
<i>Densely-settled Rural (20.0-39.9 rpsm)</i>	5	26%		
<i>Rural (6.0-19.9 rpsm)</i>	5	26%		
<i>Frontier (&lt;6.0 rpsm)</i>	7	37%		

## **Appendix C - Participants' Counties**

Figure C.1: Participants' Counties

