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To the Graduate Council:

I am submitting herewith a thesis written by Carrie Suzanne Baker entitled "Mothers' Attitudes about Childhood Nutrition Coverage in Magazines and Newspapers." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Communication.

Carolyn Lepre, Major Professor

We have read this thesis and recommend its acceptance:

Naeemah Clark, Mark Littmann

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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and recommend its acceptance:

Naeemah Clark

Mark Littmann

Accepted for the Council:

Anne Mayhew
Vice Chancellor and
Dean of Graduate Studies

(Original signatures are on file with official student records.)

**MOTHERS' ATTITUDES ABOUT CHILDHOOD NUTRITION COVERAGE
IN MAGAZINES AND NEWSPAPERS**

**A Thesis
Presented for the
Master of Science Degree
University of Tennessee, Knoxville**

**Carrie Suzanne Baker
December 2006**

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And Sam, thank you for sticking with me - through this and the rest. I can't imagine any of this without you.

Abstract

This study explores mothers' attitudes toward magazine and newspaper coverage of childhood nutrition issues. The prevalence of childhood obesity has increased in recent years along with media coverage of obesity and obesity issues. This growing concern has posed a problem for society and parents.

Focus group interviews and individual interviews were conducted with mothers who read magazines and newspapers. These interviews explored mothers' nutrition habits, knowledge of obesity and, overall, their attitudes about childhood nutrition topics, such as childhood obesity, as they are presented in magazines and newspapers.

Table of Contents

Chapter 1: Introduction.....	1
Chapter 2: Literature Review	5
Chapter 3: Research Questions.....	14
Chapter 4: Methodology.....	16
Chapter 5: Results.....	21
Chapter 6: Discussion.....	35
References.....	44
Appendices	50
Vita.....	52

Chapter 1: Introduction

It has been called a crisis, epidemic, threat and the public health issue of the day. In the last decade, obesity has become the leading cause of preventable death in America (Evans, Renaud, Finkelstein, Kamerow & Brown, 2006). Obesity is now the nation's "most common nutritional disorder" (Caprio & Genel, 2004).

Perhaps the most talked about trend in overweight and obesity is the increase in overweight children. Results from the 2003-2004 National Health and Nutrition Examination Survey, or NHANES, show that 17 percent of children and adolescents ages two to 19 years are overweight (Ogden et al., 2006). There was an increase of 11 to 19 percent among children ages six to 11 between 1988-1994 and 2003-2004. Overweight increased from 11 to 17 percent during the same time for adolescents ages 12 to 19 (Ogden et al., 2006). According to the Centers for Disease Control and Prevention, or CDC, National Center for Health Statistics (2006), between 1999-2000 and 2003-2004 alone, obesity in female children and adolescents increased from 13.8 percent to 16 percent and 14 percent to 18.2 percent in male children and adolescents. Prior to this time, obesity and overweight in adolescents and children had remained relatively steady during the years 1960-1980. Overall, the prevalence of obesity among children and adolescents has significantly increased during a six-year period, 1999-2004 (Ogden et al., 2006).

The CDC (2006) defines obesity as an imbalance in caloric intake and physical activity. Body mass index (BMI) is used to determine obesity. BMI uses weight in

relation to height (kilograms divided by the square of height in meters) to create obesity and overweight definitions. The CDC defines overweight in children and adolescents as weight at or above the 95th percentile of the sex-specific BMI. Adult obesity is defined as a BMI over 30 and extreme obesity is defined as a BMI over 40.

The CDC (2006) names many “underlying factors” associated with obesity, including “increasing portion sizes; eating out more often; increased consumption of sugar-sweetened drinks; increasing television, computer, electronic gaming time; changing labor markets; and fear of crime, which prevents outdoor exercise.” Societal messages about food have also increased. Today, thousands of new food products are introduced in America each year (Schwartz & Puhl, 2002). In 1995, 17,000 new food products were introduced into the market compared to 10 years prior when only 5,500 new food products were introduced (Schwartz & Puhl, 2002). People have adapted to more food choices and larger portion sizes with the advent of the “supersize” menu option. This change, however, does not correlate with an increase in physical exercise. Instead, the CDC (2006) has said that nationally there has been no change in physical activity patterns. The CDC also reports that obesity is a much more complex issue encompassing more than food consumption and exercise. The list above gives a sampling of issues connected with the childhood obesity epidemic.

The effects of obesity are almost as numerous as its causes. The physical effects are usually the most noted ones. According to the American Heart Association, children who are overweight are more likely to become overweight adults, increasing the risk of heart disease and other obesity-related diseases. The CDC (2006) provides the following list of increased-risk “health consequences” for those with obesity: hypertension,

dyslipidemia (such as high total cholesterol or high levels of triglycerides), type 2 diabetes, coronary heart disease, stroke, gallbladder disease, osteoarthritis, sleep apnea and respiratory problems, and some cancers (endometrial, breast and colon).

Obesity also carries psychological effects. The *Healthy Weight Journal* (King & Hayes, 2003) published comments from a child with obesity in its March/April 2003 issue. These comments demonstrate the psychological effects of childhood obesity:

Being fat is worse than being stupid. The kids at school hate us fat kids. They call us names – lard butt, Jell-O thighs, Miss Piggy. I could write a book about the names I've been called.

The psychological impact of childhood obesity can result in body hatred and compulsive eating or, conversely, compulsive exercising (King & Hayes, 2003). Both imbalances create unhealthy nutritional regimens. Obesity can also create feelings of inferiority among children who may feel they are failures if they reach unsatisfying results from diet or exercise.

Obesity also has economic consequences. Three in five U.S. healthcare dollars go toward obesity-related illnesses (Chatterjee, 2004). This amount will only increase as the rise of obese children leads to a higher number of obese adults and a swell in obesity-related health problems (Hellmich, 2004). According to the CDC (2006), 1998 national obesity-related medical spending may have reached as high as \$78.5 billion, half of which was paid for by Medicaid and Medicare.

Given these concerns for the health and well-being of the nation's children and adolescents and future adults, it is important to understand prevention options for childhood obesity. The issue has gained a sizeable amount of national attention. National and governmental organizations have devoted entire campaigns toward educating the

public about obesity. The National Heart, Lung and Blood Institute (2006) even offers a free BMI calculator and obesity guidelines on its Web site to download for electronic palm devices in attempt to place obesity information at the public's fingertips. The Alliance for a Healthier Generation, an initiative of the American Heart Association (2006) and the William J. Clinton Foundation, was created with childhood obesity prevention in mind. The program plans to stop the increase in childhood obesity by the year 2010. Most recently the group worked with Coca-Cola, PepsiCo, Cadbury Schweppes and the American Beverage Association to create guidelines allowing only lower calorie and nutritious beverages to be sold in schools. The program also partnered with Nickelodeon to create a television program encouraging children to make healthy changes in their lives.

Even with these initiatives, obesity still has not seen a decrease, and some feel such public health strategies to encourage childhood obesity prevention are not taken seriously (Schwartz & Puhl, 2002). Medical professionals and public health officials have said there is information available to guide children's nutritional intake, but as obesity continues to rise, they have wondered if anyone heeds this advice (McCarthy, 2004). The purpose of this study is to assess mothers' use of childhood nutrition information published in women's magazines, newsmagazines and newspapers. As the obesity epidemic grows, so does the media's obesity coverage. The next chapter will look at the media's coverage of childhood obesity and other influences on childhood nutrition.

Chapter 2: Literature Review

Parental Influence

Eating patterns learned during childhood lead to eating habits later in an adult's life (Graham, Gibbons, Marraffa & Sultana, 2000). These eating patterns are formed by nutrition choices made for the child by his or her main caregivers, typically the parents. Parents then play a crucial role in influencing their children's nutrition habits (Benton, 2004). Benton's study (2004) concluded that genetic nutrition tendencies can be modified by parental influence. Further studies named mothers as the main influence on a child's nutrition:

The most important aspect of a young child's environment is probably the family and the child feeding practices of parents, particularly mothers, help to shape and maintain children's food preferences (Cooke, 2004).

Family environment can also shape a child's eating practices (Van Steveren, 2004) (Cooke, 2004). Therefore, a family environment including nutritional meals can result in children who make more nutritional food choices during adulthood. Children often learn many behaviors by example and nutrition is one of them. Cooke (2004) found that children of parents who consume fruits and vegetables were more likely to follow the behavior by choosing healthy fruits and vegetables. Conversely, parental preferences may cause an unhealthy diet if the parents choose to bring home unhealthy foods. Since children are too young to shop for and purchase their own food, they must eat what is chosen for them by their parents. If parents choose unhealthy foods, this makes the foods

more accessible to children, and easier access to unhealthy foods is associated with a greater intake of these foods (Cooke, 2004).

However, proper nutritional guidance can result in a fondness for healthy food options. Making healthy foods familiar during mealtime and snacks increases this likelihood and decreases “neophobia,” or fear of new foods (Cooke, 2004). These very same children may in turn someday make more healthy nutrition choices for their own children. Poor nutrition, however, during childhood can result in eating disorders, which can in turn result in nutritional problems such as obesity.

The Media and Health Information

Given the staggering numbers of obese children and the importance of parental influence in childhood nutrition, it is important to know where parents get childhood nutrition information and the type of information they find. Studies have named forms of media as influencing factors on an individual’s health choices (Wallack, 1990), (Atkin & Arkin, 1990). At the same time, the media has been blamed for sending “problematic and potentially harmful messages” about nutrition (Signorelli, 1993, p.136). Television and print media, as well as advertising, have all been pointed to for incomplete views of health issues or giving misleading health information to readers (Signorelli, 1993).

Media Effects on Attitudes and Behaviors

It is important to continue studying media because media has proven capable of affecting people’s opinions and attitudes. Millions of people consume print and electronic media daily (McCombs, 1994). Research exploring the effects of this media

consumption on people's attitudes and behaviors has found that media consumers learn facts about issues as well as form opinions about the importance of an issue from media coverage. If a certain issue is emphasized in media coverage, then people may consider the issue more important (McCombs, 1994). This agenda setting theory is common in studies about media coverage of health issues (Brown & Walsh-Childers, 1994).

Mass media's notable ability to persuade has also been studied. These studies are concerned with what makes media messages effective or ineffective in changing a person's attitude (Petty & Priester, 1994). Just presenting the information to the consumer may not be enough (Petty & Priester, 1994). The different ways in which people process information affects the ways they use the information. For example, an in-depth analysis of information may be needed for one person to process and then utilize information presented in some form of media. By contrast, another person may just need one cue, such as a credible source or trusted publication, to process a media message and use it (Petty & Priester, 1994). Given the different ways in which people process information, some forms of media messages are more likely to be processed and used than other types. However, regardless of the information processing route, these media messages have the ability to persuade individuals (Petty & Priester, 1994).

Media and Health Coverage

Research on mass media messages about health has found that answers to medical concerns can be found from medical professionals or in an individual's own lifestyle (Brown & Walsh-Childers, 1994). Often emphasis is placed on the effect of personal lifestyle has on behaviors, and less emphasis is placed on the effects of environmental

sources (Brown & Walsh-Childers, 1994). This places heavy emphasis, and often blame, on the individual (Brown & Walsh-Childers, 1994).

While this coverage usually places responsibility on the individual for his or her health, it does not offer advice or information on treatment or prevention (Brown & Walsh-Childers, 1994).

Mass media has been identified as an influential source for health information (Wallack, 1990). Magazines and newspapers in particular have been noted for their use by readers in gathering information. Research has suggested that health educators should consider using magazines and newspapers as a means to reach the public with health information (Atkin & Arkin, 1990). Wallack (1990) emphasized the importance of mass media in disseminating health information:

Mass media are too valuable a resource to be used as simple information and entertainment machines. They must be tools to enhance understanding.

Few studies have looked at obesity coverage by the media. A 2004 study of the framing of obesity in national newspaper and television news coverage found that individuals were being held responsible for what was being considered a societal problem (Lawrence, 2004). Lawrence found that as the prevalence of obesity in American grew, so did news coverage of the subject. Media coverage was found to place overweight individuals in the majority of society (Lawrence, 2004). The study found that obesity was attributed to a complex number of societal factors, including marketing of “junk food” to children, prevalence of fast food, and portion sizes. Blaming societal factors, such as fast-food consumption, increased in 2000 when lawsuits were filed against fast food companies by individuals claiming fast food restaurants caused them to become

obese by not giving proper warning about the nutritional values of their food (Lawrence, 2004). While Lawrence's study shows that media coverage increasingly turned away from attributing obesity to personal factors (such as gluttony or a lack of self-control) and toward blaming environmental factors, responsibility was still placed on the individual. Media coverage attributed obesity to environmental factors, but ultimately left the responsibility for change in the hands of the individual. The only individuals not held completely responsible for their obesity were children. They were considered "innocent victims of an environment created by adults" (Lawrence, 2004).

Other research on obesity and nutrition framing in the media has investigated public health messages or nutritional education for children. Research such as Lawrence's is beginning to emerge as the prevalence of obesity in society grows, leaving much room for future studies of this type.

Television and Advertising

Much research has been done considering the correlation between television use by children and childhood obesity. American children average 35 to 55 hours per week of media use, including television viewing and video games (Gentile et al., 2004). Researchers believe this sedentary behavior has resulted in a decrease in physical activity and therefore contributes to the childhood obesity epidemic (Gentile et al., 2004) (Clocksin, Watson & Ransdell, 2002). Children and families who eat meals while watching television are also more likely to make less healthy food choices (Clocksin, Watson & Ransdell, 2002).

Advertising is also a large area of concern in health and nutrition information. One study found that during Saturday morning television programming, a time slot commonly viewed by children, six out of 10 commercials were for food-related products and most of these products contained a high sugar content (Signorelli, 1993). Some studies feel the imbalance of marketing of unhealthy foods and marketing of healthful foods creates difficulty in reducing the caloric intake of today's children (Henderson & Kelly, 2005). Because of this, advertisement of foods has been directly correlated with children's food choices and increases their risk for obesity (*The Lancet*, 2005).

Print media

The average American spends about 84 hours a year reading magazines and 165 hours reading newspapers, compared to an average of less than one hour a year spent in a doctor's office (Kline, 2003). Newspapers and magazines are often more popular sources for nutrition information than health professionals (de Almeida et al., 1997). One study reported magazines as a main source of health information over family, friends, health professionals and other forms of media such as television, newspapers and radio (Kassulke et al, 1993).

Women's magazines cover a variety of topics, from beauty and fashion to home décor and health. The health issues cover a wide range of topics such as disease and prevention, exercise and fitness, sexual health and fitness. Women's magazines also attract large readerships. According to the Magazine Publishers of America, the average circulation in 2005 for top 100 magazines, showed women's magazines *Good Housekeeping*, *Family Circle*, *Ladies Home Journal* and *Woman's Day* ranked in the top

10. Over 43 percent of *Good Housekeeping* readers' households include children, and over 50 percent of *Woman's Day* readers have children in their household, according to the magazines' media kit.

Time, *Newsweek* and *U.S. News & World Report* also ranked in the top third of the Magazine Publishers of America 2005 list of average circulation for the top 100 magazines. Like women's magazines, news magazines assign some editorial space to health-related concerns. These magazines are also read by parents. For example, almost 40 percent of *Newsweek's* reader's have children in their household, according to the media kit information.

Daily newspapers have a wide-ranging audience. According to a 2004 survey by the Newspaper Association of America, or NAA, 55 percent of adult weekly readers read the food/cooking section of their daily newspaper. This section often contains stories related to childhood nutrition issues. Also according to the NAA 2004 survey, 48 percent of single-copy newspaper buyers have children living at home, making newspapers a significant source of information for parents.

As obesity rises in the U.S., so does its number of appearances on the covers and pages of popular magazines and newspapers. Obesity is catching readers' attention in cover stories in top circulated magazines such as *National Geographic* (August 2004), and in features in magazines such as *Good Housekeeping* (May 2002). The coverage trend also reflects the concern of groups other than parents. The obesity epidemic recently made the cover of an issue of *NEA Today*, the National Education Association's magazine (March 2005).

Previous research explored childhood nutrition and obesity and women's magazines, newsmagazines and local newspapers (Baker, 2004 & 2005)¹. Three newsmagazines (*Time*, *Newsweek*, *U.S. News & World Report*), five women's magazines (*Good Housekeeping*, *Ladies Home Journal*, *Family Circle* and *Women's Day*) and two daily Tennessee newspapers (*The Commercial Appeal* and *The News Sentinel*) were searched for childhood nutrition articles during a 10-year period. The studies found that articles focusing on childhood obesity dominated the childhood nutrition information provided in newsmagazines, women's magazines and newspapers.

In newsmagazines and newspapers, these articles often used narratives to tell stories of families "suddenly" afflicted with obesity or diabetes. Articles placed much of the blame for childhood obesity on parents, usually the mother. Parents were often shown as "too busy" or "ignorant" of proper nutrition to prevent childhood obesity. Schools and television/video games were also often held responsible for the obesity epidemic. Along with this, the studies showed most articles included or opened with obesity and childhood obesity statistics. The studies also found that articles provided several statistics and personal anecdotes, but did not often offer advice for prevention of childhood obesity.

The studies also showed that magazines also used personal narratives and statistics to catch readers' attention. These articles usually pointed to parents to take action in the childhood obesity epidemic, but did not follow through by offering complete

¹ For more information about these studies, contact the author at cbaker14@utk.edu. You can also contact the author's advisor, Dr. Lyn Lepre, at clepre@utk.edu, who will be in contact with the author.

advice on how to do so. Advice offered was often conflicting or oversimplified, and readers were not encouraged to seek a medical professional's advice.

Chapter 3 presents the questions used to investigate mothers' use of childhood nutrition information in magazines and newspapers.

Chapter 3: Research Questions

Given the serious nature of the obesity epidemic among children, the likelihood that people will use magazines and newspapers to gain health information (de Almeida et al., 1997) and the role parents play in making nutrition decisions for their children (Benton, 2004), it is important to understand how mothers process the childhood nutrition information available in magazines and newspapers. Exploring this process will help us understand mothers' perception of the childhood nutrition information provided in certain magazines and newspapers, the usefulness of the information and positive or negative effects of the information. Knowing this could help media professionals form their coverage of childhood nutrition and childhood obesity in a way that can best aid their readers. This was investigated using the following research questions:

RQ1: How do mothers read nutrition information in magazines and newspapers?

RQ2: How do mothers apply or use the childhood nutrition information or advice offered in magazines and newspapers?

RQ3: Do mothers trust childhood nutrition information or advice offered in magazines and newspapers?

RQ4: What type of childhood nutrition information are mothers more likely to read?

Discovering mothers' current personal childhood nutrition habits is also important in order to add context to their use of the media. The following questions were created to investigate this:

RQ5: What do mothers consider reliable sources for childhood nutrition information?

RQ6: What types of nutrition information do mothers consider when planning meals for their children?

As media coverage of the childhood obesity epidemic grows, it is important to examine readers' perceptions and understanding of childhood obesity. The next questions explore mothers' feelings about and knowledge of childhood obesity:

RQ7: Who or what do mothers feel is responsible in preventing childhood obesity?

RQ8: Do mothers feel there is adequate information available to parents attempting to prevent childhood obesity?

These questions will show mothers' knowledge of the childhood obesity issue; use of childhood nutrition information in magazines and newspapers; and general attitudes toward childhood nutrition information in magazines and newspapers. Chapter IV discusses the methodology used to explore readers', specifically mothers', feelings about childhood nutrition coverage in these magazines.

Chapter 4: Methodology

Focus Group Interviews and Individual Interviews

Qualitative methods of focus group interviews and individual interviews were used to collect data for this study. Qualitative research deals with descriptions of people, places and conversations and is not easily handled through statistical research (Bogdan & Biklen, 1992). This research lends itself well toward exploring a topic's complexity in the context of the subject's point of view (Bogdan & Biklen, 1992). Through this type of research, the investigator can explore the feelings of the participant and gain a better understanding of a certain behavior. Focus group interviews and individual interviews involve key methods of gathering information in qualitative research: in-depth interviewing and document review (Marshall & Rossman, 1995). This allows the researcher to spend time with the subjects and delve into the intricacy of the topic. Due to the time-consuming exploratory nature of the focus group interview and individual interview methods, smaller numbers of participants are used. Therefore, results garnered from the interviews cannot be generalized to the public as a whole. These interviews, instead, stand to provide a more detailed understanding of the topic.

The combination of three research methods, interviews (both group interviews and individual interviews), multiple coders and the constant comparative method served to improve validation of the research. As explained in the following paragraphs, the group and individual interviews allow the researcher to explore the topic in-depth, the

constant comparative method shows the interviews' emerging themes, and the use of multiple coders brings objectivity to the constant comparative process.

The combination of focus group interviews and individual interviews served to neutralize any gaps left by possible weaknesses of either method. For example, focus groups allow the investigator to observe participants' interaction on a topic (Morgan, 1997). This gives the investigator the advantage of being able to instantly see the differences in participants' opinions and reactions to the topic at hand (Morgan, 1997). Individual interviews have the disadvantage of not having multiple participants to trigger thoughts or reflections in other participants' minds (Marshall & Rossman, 1995). Group interviews also offer a natural discussion that can "bring the researcher into the world of the subjects" (Bogdan & Biklen, 1992). At the same time, individual interviews allow for more control of the topic by the moderator than focus group interviews (Marshall & Rossman, 1995). Individual interviews can also allow participants to give more in-depth answers than a focus group interview (Morgan, 1997). A focus group can be dominated by a single participant, diminishing the responses from fellow participants, while an individual interview gives focus to the one participant (Morgan, 1997).

Participants and Procedures

Focus group interviews and individual interviews with 17 total participants were conducted in Tennessee, one of the top ten "fat states" as determined by the CDC's 2001 percentage of adults with obesity by state. Tennessee has an average BMI of 22.6 placing it at number nine on the list (American Obesity Association, 2005). The interviews were conducted during a three-week period. The population of interest for this

study was mothers. As previously mentioned, parents are key contributors in the formation of healthy nutrition patterns in children (Benton, 2004), and females make up the majority of readership among women's magazines, one of the types of magazines considered in this study. Therefore, mothers were the ideal participants for investigation. Participants were recruited using flyers placed around the University of Tennessee campus and area businesses. This recruitment gathered participants from the university community as well as the East Tennessee community, drawing from a variety of backgrounds and viewpoints among participants. Participants' highest level of education ranged from a high school diploma to a master's degree. The number of children for each mother ranged from one child to three children. Ages of the participants' children ranged from late 20s to eight months in age. All participants worked in jobs outside their home, and all participants resided in East Tennessee. Participants received compensation for their participation in the form of Food City grocery stores coupons and entry into a drawing for a \$50 Food City grocery stores gift card.

Participants were divided into four groups and three individual interviews. Three people participated in the three individual interviews and the remaining fourteen were split into four separate groups. Individual interviews had only one participant per interview and these individuals did not participate in any of the group interviews, only the individual interview. Participants were told they would be discussing childhood nutrition and magazines and newspapers and given no other specifics in order to prevent any influence upon answers. All participants signed an informed consent form prior to the interview in accordance with the Institutional Review Board standards. Interviews were recorded onto audio cassette tapes with the permission of the participants, and a

graduate student took notes during the interview. Each participant was assigned a number at the beginning of the interview in order to protect confidentiality. Participants and note-takers then referred to each participant by their number. Interviews (both group and individual) were moderated by the principal investigator using a question list as a moderator guide [See Appendix A]. Group interview participants and individual interview participants were asked the same questions. Questions were created to investigate mothers' knowledge and opinions of magazines and newspapers, childhood nutrition and childhood obesity. Participants were questioned and allowed to discuss topics freely in order to encourage spontaneous reactions (Morgan, 1997). After the interviews, the tape recordings were then transcribed.

Data Analysis

The qualitative method constant comparative was used to analyze the data in the interview transcriptions and collect themes from the interviews as a whole. Glaser and Strauss' method (1967) begins by coding the information into categories by looking for key events or issues. These events and issues might be the use of thematic devices such as metaphors and narratives. As themes began to emerge, coders placed the events into common categories. The constant comparative method does not statistically count occurrences, but rather uses an in-depth examination of each interview, comparing themes and categories present in one interview to another interview's themes and categories. In this study, two graduate students and the researcher coded the interviews by looking for trends and emerging themes emphasized during the interviews. Next, per Glaser and Strauss' method, categories were compared in the different interviews in

attempt to find unifying themes. Finally, coders summarized the themes present in the interviews. The constant comparative method allows researchers to “constantly compare” data during the collection process with the end result being condensed themes (Bogdan & Biklen, 1992). Through discussion, coders then came to agreement on the group of interviews’ emerging themes. All coders agreed upon the final themes in order to ensure that all themes were interpreted the similarly.

Chapter 5: Results

Through exploration of interview transcripts, several themes emerged. These themes include: mothers' use of magazines, how time constraints limit nutrition, the question of who or what is responsible for childhood obesity, mothers' nutritional habits, mothers' knowledge of obesity, and suggestions for improving magazines and newspapers.

Magazine Use

When participants were asked what magazines and newspapers they read or subscribe to, common responses included *Good Housekeeping*, *Woman's Day*, *Cosmopolitan*, *Reader's Digest*, *Southern Living*, *People*, *Parents*, *Parenting*, *Newsweek*, *Time* and local newspapers such as the *News Sentinel* in Knoxville, Tennessee and *Mountain Press*, based in Sevier County in Tennessee. One or more of the same publications were read in each group or individual interview, creating overlap in the material read by participants [See Table 1]. Generally, the mothers split their magazine and newspaper reading into two areas: information and entertainment. Participants considered newspapers or newsmagazines the best publications to find information, saying they read those for "informative articles," and they used titles such as *People* or *Cosmopolitan* as sources of entertainment. *Good Housekeeping*, *Woman's Day*, *Reader's Digest*, *Southern Living*, *Parents*, *Parenting* and others were said to fit into both categories.

Table 1: Magazine and Newspaper Use by Participants

Publications Reported by Participants	Number of Times Reported Read Regularly	Number of Times Reported Subscription
<i>All You</i>	1	1
<i>ASHA Leader</i>	1	1
<i>Better Homes & Gardens</i>	1	0
<i>Cooking with Paula Deen</i>	1	0
<i>Cosmopolitan</i>	3	0
<i>Country Home</i>	1	1
<i>Country Living</i>	1	0
<i>Diabetes Forecast</i>	1	1
<i>Family Fun</i>	1	1
<i>First for Women</i>	1	0
<i>Glamour</i>	1	1
<i>Good Housekeeping</i>	6	3
<i>Greeneville Sun</i>	5	3
<i>Guide Posts</i>	1	1
<i>Halls Shopper News</i>	2	0
<i>House Beautiful</i>	1	1
<i>InStyle</i>	1	0
<i>InTouch Weekly</i>	1	0
<i>Ladies Home Journal</i>	3	0
<i>Mountain Press</i>	3	1
<i>O, The Oprah Magazine</i>	2	1
<i>News Sentinel</i>	6	2
<i>Newsweek</i>	3	0
<i>Parenting</i>	3	0
<i>Parents</i>	3	3
<i>People</i>	4	2
<i>Prevention</i>	2	1
<i>Reader's Digest</i>	4	4
<i>Redbook</i>	1	0
<i>Southern Living</i>	3	1
<i>Tennessee Home and Farm</i>	1	1
<i>Time</i>	3	2
<i>U.S. News & World Report</i>	1	1
<i>USA Today</i>	1	0
<i>Woman's Day</i>	2	2
<i>Woman's World</i>	1	0

In reading nutrition information, mothers said they had read nutrition articles in the magazines and newspapers they named. Participants reported that they were more likely to read an article if it applied to their life or their family. When asked what health articles they were most interested in, participants usually named topics related to appearance such as diet and exercise associated information. Other topics commonly mentioned included childhood nutrition in terms of “what to feed a child at what age,” childhood food allergies, topics personally related to their own families (such as cancer, skin health or diabetes) or their own work (examples included, diabetes, ADHD or elderly nutrition), and anything considered the “latest findings” or “hot topics” such as antioxidants in blueberries.

The mothers also reported trusting the nutrition information and advice in magazines and newspapers. Mothers consistently said they were more likely to trust a publication they subscribed to or read regularly than a publication that was new to them. Several participants reported trying recipes or tips and receiving mediocre results. This did not however damage the participants’ trust.

If it’s something you trust, like Dear Abby in the paper or something you trust, then I’ll always trust and try that advice no matter what. But most stuff, I’ll still read and think about the advice. It don’t really turn me away unless it’s like a huge disaster. It [the recipe I tried] was bad, but not bad enough to make me quit.

The mothers said they trusted specialized publications more than general publications. Mothers reported being more likely to turn to a health magazine or parenting magazine for nutrition advice than one with several topics.

Yeah, you build more trust in a health magazine for health issues than something with more articles and topics.

While mothers said they use magazines and newspapers to find information, they don't actively seek information on a certain topic. Instead, they read the articles in passing if they feel it applies to them in some way or has some useful value.

If I see something I'll read it because I'm concerned, but I don't go searching for it in magazines or newspapers. So much of it's just ads and garbage that I can't sort through. But if I run across it I'll definitely read it.

The amount of advice also makes it difficult to "search" for specific advice in magazines. Mothers said they were overwhelmed by the amount of information and could only retain so much to use.

I think there's so much information, you just kinda retain a small percentage of some that you really feel like, "OK, this is something I can do. I'm gonna try this one thing." And maybe you get one thing out of a multitude because it's too much.

This also ties to time constraints, which is explored in the next theme.

Mothers were also more likely to read nutrition information if it was given to them. Several participants mentioned free sources of information such as literature (pamphlets, newsletters and booklets) from doctors or through the state health department or WIC (Women, Infants and Children) program or magazines and newsletters from preschool and daycare programs as helpful sources of information. Most agreed that if information was handed to them free of cost, they would read and use the information.

Time Constraints Limit Nutrition

Time constraints, or a lack of time, were constantly mentioned. Mothers often read articles about childhood nutrition and agree with the information in the articles, but would only apply the information if time permitted. Many participants found the

childhood nutrition advice in magazines to be inapplicable to “working mothers” because of time constraints. Mothers commonly mentioned certain recipes for homemade baby food as something they did not have time to try.

There’s a lot of [childhood nutrition] suggestions you take into consideration. There’s a lot you just don’t because I don’t have time to sit and cook fresh green beans every day without preservatives and seasoning.

Most said this type of advice, such as cooking your own baby food, was said to most likely apply to “housewives,” “young mothers,” “earthy people” or “rich women,” but not to mothers with full-time jobs outside their homes. Younger participants or participants with only one child were more likely to report having tried advice such as preparing homemade baby food one or more times.

Time constraints also affected physical activity. Mothers often referred to exercise as an important childhood obesity preventive method mentioned in magazines and agreed this was useful information. Mothers agreed children do not play as actively, often saying children do not “get outside and play” because they instead are watching television or playing video games. Relating to mothers’ time constraints, participants also said children are not playing outdoors because they do not have enough time to take them outside and stay with them and do not feel it is safe to send children out without adult supervision. This lack of safety was referred to as one of the many societal changes discussed by participants. It is discussed more in the next theme about responsibility. Mothers agreed physical activity was something that often had to be planned into their family’s daily schedule in order to ensure it happened.

Yeah, schedule it in. I think it’s a conscious effort. You have to decide that that’s what you’re going to do, then watch how you shop [for food] and how your daily routine is.

Time constraints also often resulted in less-healthy food choices. Mothers often condemned fast-food restaurants when asked about the possible causes of childhood obesity. Mothers often referred to fast food's high-fat content in reference to childhood obesity. They also considered meals prepared at home more healthful.

You know, to go home and cook a full meal would probably make the difference in obesity because parents are going out and picking up McDonald's or Taco Bell or whatever else.

But when asked about their own meal planning habits, they admitted they eat fast food or eat out at restaurants more than they would like. The mothers stress that their busy schedules play a large factor in what children will eat, usually for the evening meal after they return home from work. There is a daily attempt to balance foods, but sometimes this intention is affected by time constraints.

We try to make sure they're getting what they need on a daily basis, like enough milk and cheese and yogurt, you know. I'm always thinking, has she had anything green today? But you also have to think, how much time do I have to do all this? What's the easiest? Most convenient?

In terms of time constraints, mothers described fast food as "convenient" and often mentioned many fast-food restaurants' new "healthy options" for children's meals, such as replacing French fries with carrot sticks or a soft drink with milk.

Question of Responsibility

Questions of responsibility were often discussed in terms of childhood obesity. Mothers most often mentioned four different groups: parents, society, schools and medical professionals. All mothers interviewed said childhood obesity was ultimately the responsibility of the child's parents. Participants often mentioned nutrition behavior they

learned from their parents or their children learning from their nutrition behavior.

Mothers said it was up to parents to guide children's nutrition in order to help them make healthy food choices while they are young and influence future nutrition habits. Mothers consistently referred to parents as "they," with only one participant included herself in the group by using "we" or "us." And often the discussion of parents' role of responsibility in childhood obesity included an anecdote about another parent raising an obese child or a similar incident they had read about or seen on television.

Doctors were also given a share of responsibility. Pediatricians are expected to "step in" at a certain point when parents are not handling childhood obesity. Mothers also said it is up to the doctor to provide childhood obesity prevention information to the parents.

I think the doctor's office and health department play a pretty big role, too. They teach the parents how to do right nutrition-wise. If they don't know or don't have parents that told them the right way, somebody needs to show them.

Mothers were concerned that doctors did not tell people about all the risks associated with childhood obesity, or that people did not fully understand the implications of the diagnosis.

Schools were seen as a responsible party, mostly concerning physical education. Mothers drew a direct correlation between a cut in schools' physical education classes and the increase in childhood obesity. Schools are depended on to teach children about the benefits of physical activity and exercise. Schools are seen as not offering enough time for physical education classes because of rigid curriculum or a lack of money to hire physical education teachers. Mothers mention this as not only a problem for children's

physical health, but mental health as well. Recess is seen as a time for children to “recharge” their minds by refreshing their bodies through exercise.

Vending machines were another point mentioned in schools’ share of the responsibility. Parents were excited about vending machines being removed from schools or sodas being replaced by fruit drinks or other snacks considered “healthy options.” One participant noted that placing vending machines in schools might make soda seem acceptable, saying, “If it’s at school and it’s accepted, then it must be a good thing.” Otherwise, school meals (lunch or breakfast) were rarely mentioned. If participants mentioned general school meals, they considered the lunches to have “improved” since their experience in school, and now provide adequate nutrition.

Changes in society were often mentioned. Whether it was portion sizes, and abundance of unhealthy food choices or lack of physical exercise, mothers agreed that the world did not operate “the way it did when they were growing up.”

I think we’re too indulgent. When I was growing up, cheeseburgers, French fries and Coke was a special treat at my house. And, uh, Coke was a special treat. We didn’t keep Cokes in the house. If we had Cokes, like I said, it was special. We went out and bought a carton, and a carton was six and they were six-ounce Cokes. That was it.

Fast food, large portion sizes, too much television consumption and video game use, and a lack of exercise were all considered part of “the American way.” These changes inhibited mothers’ attempts to ensure their children had proper nutrition and exercise. For example, many parents would not allow their children to play outdoors due to violence or fear of abduction. Children are only allowed outdoors under supervision and parents who work outside the home do not always have time to supervise their children’s play time.

Often, watching television takes the place of the time children would spend outside playing if mothers felt more comfortable with their child's safety outdoors alone.

Working mothers were also seen as part of the societal problem. Participants mentioned reading this in magazines and compared it to previous experiences such as being raised in a home where their own mother did not work.

I think some of that's changed too because of the time, where we are. Our mothers were home. Nowadays we're working, so it's easier to go by and grab a bite to eat.

The participants considered the change of more mothers working outside the home an unavoidable part of society and a contributor to the obesity problem for others but did not specifically mention this as a problem for themselves.

Advertising of unhealthy foods to children was also deemed a problem of society. All advertising that was mentioned was television advertising and consisted of "sugary, unhealthy" foods or fast-food restaurants. Sometimes the advertising is indirect – one child sees or hears the advertisement and passes it along to another, creating an additional problem for parents trying to keep unhealthy foods away from their children.

Society was seen as something that contributed to other people's weight problem through unhealthy portion sizes or the idea that it is OK to be obese.

But so many times in the families where there is obesity, the parents are obese themselves and they choose not to get the information because they don't see anything wrong with that lifestyle.

But ultimately mothers said it all comes back to the parents' responsibility because children are too young to buy groceries and parents are responsible for the food that is placed in front of them daily.

Nutritional Habits

Mothers' current nutritional habits consisted mostly of learned behaviors. These behaviors are usually passed down from their mother and are remembered from their own childhood. This typically involved creating a "balance" in meals. Most often this balance was simple and used vegetables, meat, bread and sometimes fruit. Color was also mentioned as a balance indicator. For example, all foods served at one meal cannot be yellow or white; there must also be a green-colored food.

Mothers also learned from negative results. Many did not want their child to "eat the way I do" or use nutrition habits they learned as a child.

Yeah, I'm super-picky, and it's very hard to find something that I will eat, and he'll eat anything, my husband will. It's very hard to find something that I will eat that's not fast food basically because that's how I was raised. French fries came into play a lot. I mean, it's hard because I don't like fruits and very few vegetables. . . . I want to eat better, and be more nutritious and stuff because I want my son to.

Learned behaviors were constantly mentioned in terms of nutrition. Whether negative or positive, mothers drew on those experiences in raising their own children.

When they did need advice, the first source they considered was their own mother or some other family member with "seniority." Friends with children were also a popular source. Doctors were commonly used for nutrition advice, although many mothers felt doctors were not as accessible as another source like a friend or the Internet. Magazines, specifically parenting magazines, books and the "healthy living" sections of some local newspapers were also named as sources of advice.

Mothers also carried the bulk of the responsibility for their family's nutrition. The majority of participants did the meal planning and grocery shopping for their

families. Most preferred to do the grocery shopping without their husbands, and some did not trust their husbands to make good nutritional decisions and buy only unhealthy foods or “junk.”

I do [the grocery shopping for my family]. I wouldn't let my husband near a grocery store. He'd buy all the candy and junk in there.

Some participants reported that their husbands were health-conscious, but the majority did not feel their husbands could plan family meals using proper nutrition. Participants actually rarely, if at all, mentioned their husbands when describing their process for deciding nutrition for their children.

Obesity Knowledge

Mothers gained much of their obesity knowledge through media reports. They commonly quoted statistics or shared stories they had read in a magazine or newspaper or saw on a television program. Participants often used the words “sad” or “unreal” to describe their feelings about childhood obesity. They described obesity as an overwhelming issue and mentioned several causes, including fast food, portion sizes, lifestyle, too much television or video games, too many snacks or sugary foods, mothers' time constraints, lack of exercise, no physical education in schools, vending machines in schools, heredity and lack of knowledge about proper nutrition.

Even with the myriad causes of obesity, mothers' ideas for childhood obesity prevention were often simple – more exercise and less food. Mothers' own tactics for preventing obesity often included some form of deprivation, such as cutting out snacks or sugar- or starch-laden foods. High-calorie foods or high-fat content in foods was rarely

focused on as a worry. Many participants specifically voiced concern about potato chips or soft drinks as contributor to obesity.

And cutting out the sodas is important. If I had cola, I tried to have diet so if the real stuff was there, they won't drink it. Sometimes I think if I had to do it over, I would have never given my kids colas.

Snacks, however, were often mentioned as a concern. The mothers mentioned looking in magazines for healthy snack ideas and recipes more than any other advice. They also said healthy snacks were a common topic covered in magazines and newspapers.

I try to cut back on snacks. Because usually when they want snacks it's sugary stuff. And sometimes we go through times when they eat well for three days then three days not, so I always limit snacks and make sure they eat three meals a day. And if they don't eat, I won't let them eat junk. If he won't supper, I won't let him have an unhealthy snack. I'll let him have yogurt.

A heavier emphasis was placed on between-meal snacks than meals themselves. Dinner was the most often-mentioned meal of the day, other than snacks.

Advice for nutrition or prevention of obesity only applied to people with a current problem. Even if the advice is for prevention, it is still considered applicable only to those who already have an obesity problem.

Some [children] can use the French fries. They're so small that French fries don't bother them. You know, it's OK. There's some that are obese or overweight that, you know, you need watch giving them the French fries.

The majority of the mothers echoed this. The mothers did not mention specifically using any childhood obesity prevention tips, only nutrition tips. mentioning that childhood obesity information or advice read in magazines or newspapers applied to those who "need it." Those people that need the information were considered, by the mothers, to be people who are already obese.

The people who need the information the most, the ones with a problem, don't always read the magazines or the paper.

Obesity discussion also revealed that mothers feel the people who need to hear or read obesity information do not heed the advice. They felt that advice and information is readily available, but not being applied by the "people who need it."

I think the resources are out there, but the ones that need it, a lot of the times they're the ones that choose to turn their heads.

The participants reported that they believe this could be due to an inability to realize the seriousness of the issue, a distrust of doctors' advice or just ignorance of the issue. The fault again falls on the parent in this situation, especially if the child has been diagnosed by a doctor. Most mothers considered such actions negligent on the part of the parents.

Mothers with experiences with obesity or an obesity-related disease were more aware of proper nutrition and appropriate ways to prevent obesity. These participants often had a relative who was overweight or obese. This connection caused greater concern that their children would become overweight as well. These mothers reported seeking nutrition information more often, subscribing to more parenting magazines, and applying more childhood obesity prevention advice they read in magazines and newspapers.

Suggestions for Improvement in Magazines and Newspapers

Mothers made several suggestions for improving childhood nutrition content in magazines and newspapers. The most common suggestion was use of visuals, such as photos of obese children, to grab readers' attention. Mothers said they needed to see the

effects first hand in order to really understand. Also, make the information quick and easy to read. Mothers feel their time is at a premium; therefore, an article that appeared lengthy or “wordy” was less likely to be read. Readers also wanted to see more specific advice or tips. Some noted that they had not seen any tips for preventing childhood obesity.

Creating inexpensive or free magazines was also a popular suggestion. Whether through an insert in the newspaper, a free magazine, or a less expensive subscription, mothers were very interested in saving money. They also felt the population that “needed” this information (those who already have obesity problems) would be more reachable through a discounted or free publication. Other suggestions included creating a publication devoted to childhood nutrition issues so parents can easily find nutrition information without sorting through other topics.

Section 6: Discussion

Exploration by use of qualitative methods, focus group interviews and individual interviews, and analysis using the constant comparative method answered the research questions set forth by the investigator. By exploring mothers' feelings about the use of childhood nutrition topics covered in magazines, information was gained about mothers' use of childhood nutrition articles in magazines and newspapers

Answers to Research Questions

RQ1: How do mothers read nutrition information magazines and newspapers?

Even though mothers stress that they only have a brief time in their busy schedules to read magazines and newspapers, they not only read the articles but often recall specific details of the coverage, such as a specific food mentioned or images used with the articles. During the interviews, participants often recalled specific accounts of childhood obesity and nutrition information they had read in magazines and newspapers. Mothers agreed that nutrition for their children (and themselves) was a prominent issue for parents with children of any age. The two most commonly named childhood nutrition concerns were childhood obesity and food allergies.

Mothers said they read magazines for two main reasons: entertainment and information. Interestingly, while mothers say they read some magazines and newspapers specifically for information, they also said they do not look for specific nutrition information, but rather information in general. If they do find "useful" information it is

because they unintentionally found the article while flipping through a magazine or newspaper.

RQ2: How do mothers apply or use childhood nutrition information or advice offered in magazines and newspapers?

Reading the articles and creating awareness does not correlate with behavior change. Parents screen articles and use only those that they feel apply to them or their family. Mothers may still read articles that they do not feel directly apply to them if the article “looks interesting.” This usually involves use of photos or graphs with numbers. However, mothers may not apply any of the information if they do not feel it applies to them before they read the article. For example, if the article were about ADHD, someone raising a child with ADHD would not only read, but might also apply the information by using tips or advice provided in the article. Mothers without an ADHD child might read the article, but would be less likely to apply the information they read. Participants also felt some information did not apply to them because the tips were too time consuming. All of the participants in this study worked outside their home, and felt that much of the advice was written for “stay-at-home moms” or someone else who they considered to have more time. Most participants did not try or read about any of advice that appeared too time consuming. If they try tips or advice, it is most likely a recipe for a healthy snack or an idea for an exercise or activity. Time and money were consistent factors in whether or not a mother would try certain advice. Mothers also requested that magazines offer more economical tips and advice to save money.

Most felt that the childhood obesity information did not apply to them. They agreed with the information and any advice provided, but did not believe they needed to use it. They felt that obese individuals should read this information, but that this population is ignoring the issue entirely. Even those mothers who mentioned that their own children had weight problems did not feel the obesity information directly applied to them. These mothers might be more likely to try advice in nutrition articles but did not believe mentions of obesity were applicable to their own situation.

RQ3: Do mothers trust childhood nutrition information or advice offered in magazines and newspapers?

The mothers place trust in magazines and newspapers they read regularly and seem to trust the information provided implicitly. Even if they tried advice, such as a recipe, and were met with mediocre results, they still planned to read the magazine. However, some items carry more trust than others. For example, parenting magazines were more trusted for their advice on childhood nutrition. Mothers also trusted advice from certain columnists (such as Dear Abby) or other magazine and newspaper departments they regularly read.

RQ4: What type of childhood nutrition information are mothers more likely to read?

Mothers read what they feel applies to them. They determine this beforehand and will make a decision whether or not to read an article or use the information accordingly. Time is also a factor. If the article appears to be “too wordy,” mothers are more likely to pass it over. However, articles with eye-catching photos and quick-read, bulleted

information or graphs with numbers are more likely to be read. Parents also seem drawn to the dramatic side of obesity coverage. Most were interested in photos and statistics, saying they remembered those components better than others in childhood obesity stories.

RQ5: What do mothers consider reliable sources for childhood nutrition information?

When seeking nutrition advice, most mothers keep it in the family and turn to their own mothers. Doctors were mentioned as the next best advice source and the Internet was also popular. Magazines and newspapers were named as long as it was a trusted, familiar magazine or newspaper. Mothers were also more likely to seek out a niche publication for certain advice, such as parenting tips from a parenting magazine, and even suggested creating a childhood nutrition magazine so parents could easily find nutrition information. They also suggested child nutrition or childhood obesity inserts in local newspapers. Either of these options could better serve mothers' time constraints by placing all the similar information (such as child nutrition, or more specifically, childhood obesity) in one place.

RQ6: What types of nutrition information do mothers consider when planning meals for their children?

Mothers rely heavily on what they already know when planning meals and nutrition for their family. This learned behavior is commonly methods their mothers used when they were children. Mothers feel these methods are "tried, true and trusted" and turn to those first. Other information can come from the failure of a tried method. If a

mother feels her own nutrition habits are poor due to the nutrition behavior she learned as a child, she will be more conscious of poor nutrition habits for her own children.

RQ7: Who or what do mothers feel is responsible for preventing childhood obesity?

The question of who is responsible for childhood obesity proved to a complicated one. The mothers believed there were several sources to share the responsibility.

Doctors should educate parents and schools should educate children. Society also shared a large portion of the blame. Parents, however, hold the bulk of the responsibility. The mothers agreed that childhood obesity prevention is ultimately up to the parents. Doctors can provide information, but if it is not followed, then it will not create a change.

Schools can educate children with physical and nutritional education, but if parents don't follow through with this when a child is home from school, children will not see the information as valuable. Society is more complicated because many different factors make up society's influence of childhood obesity. Mothers did not have a solution for reversing society's effect on children's nutrition, but they again pointed to the parents to make wise nutritional choices for their children.

While the participants consistently said it was ultimately up to the parents to prevent childhood obesity and make wise nutrition choices for their children, they did not always include themselves in this group. Participants said it was important that they make wise nutrition choices for their children, but did not mention that they personally could prevent any part of the childhood obesity issue, only general nutrition issues. They mentioned several societal factors causing childhood obesity, such as fast-food consumption or lack of exercise, but said it was up to the parents of the already obese

children to deal with these factors by, for example, increasing their child's exercise time or preparing meals instead of eating fast food.

RQ8: Do mothers feel there is adequate information available to parents attempting to prevent childhood obesity?

On childhood nutrition information as a whole, parents interviewed felt there is plenty of information offered; it is just difficult to sort through. The mothers were overwhelmed by the amount of information and often gave up on trying to process it. The mothers felt there was adequate childhood obesity information available. Mothers also reported seeing childhood obesity information in all types of media and reading about the issue in different types of magazines (women's magazines, parenting magazines and newsmagazines). Even with the wide availability of information, mothers felt that the "people who need the information" do not use it, and do not consider themselves among the people who should read the information.

Perception of the information also depends on the individual's personal experience. Someone with an obese relative reported being more likely to sort through the material and search for information on childhood nutrition. Those without personal experience only used the information if they stumbled across it while reading.

While mothers named several different causes of childhood obesity, they named only simple preventive measures or possible cures. Uncomplicated diet changes and exercise were named as ways to reverse the obesity epidemic. Very few mothers considered factors of heredity. Some did not believe this is a factor.

I think it's an excuse for overeating, just saying something's wrong. I think it's a bit of laziness.

Overall

Cognitive disconnect was apparent in several of the research's emerging themes. The mothers, who were all working mothers, said mothers working outside the home was part of the childhood obesity problem, but never said that it was a problem for themselves, specifically. Participants also said they often faced time constraints and that these constraints made it difficult to find time to prepare adequately nutritious meals or supervise an appropriate amount of play-time for their children to exercise. However, they said this was ultimately not a problem for themselves, personally, but that it was a reason why others might have overweight or obese children. Overall, the mothers would often acknowledge the obesity problem or talk about the magnitude of the problem, but consistently showed it was not a personal concern of their own by either saying their own children did not have a weight problem or pointing only to extreme cases of obesity (that they had seen on television or in publications) as the real problem, not just a child who has a smaller weight problem. The mothers seemed to believe that the issue was indeed happening all around them, but not to them.

In order to reach mothers through magazines and newspapers, the information must be made accessible to the reader. Mothers may feel overwhelmed by the information in the childhood obesity articles and feel the issue is too big to affect them. Explaining the issue in an accessible way may keep mothers from brushing off the information as irrelevant. Placement of the information could help pique readers' interest.

Using already trusted columns and departments to convey messages could help keep readers' interest and raise awareness. Currently, mothers' responses show that health information is being read by several mothers, but only being used by mothers who are already health conscious. These mothers have had a personal experience with a health issue and showed more interest in seeking advice and information. This again goes back to the issue of related articles in childhood nutrition and childhood obesity information covered in magazines.

This research shows that the mothers are reading magazines and newspapers and are ready to read childhood nutrition information in the magazines and newspapers, but need more accessible information displayed in a relevant manner. This may bring the issue to a place where mothers can see childhood obesity not as an outside issue, but as a concern that has the possibility to affect anyone.

Limitations of This Research

All the mothers interviewed in this study worked 40 hours per week outside their home. Based on the responses about stay-at-home mothers applying nutrition tips in magazines and working mothers as a cause for childhood obesity, opinions could be different in a study interviewing stay-at-home mothers. All participants were also residents of Tennessee, a "fat state," according to the CDC's 2001 percentage of adults with obesity by state. A sample of participants from a "lean state" could bring different results. A larger sample of participants might also provide more varied results. Gathering more specific demographics could also tell researchers more about the participants in the study. This study did not survey participants for any racial

background, household income or participants' own BMI or their children's BMI.

Knowing this information could reveal more about the participants and provide a better understanding of their answers. The lack of generalizability of this research is also a limitation. This research is meant not be to generalized to the entire public, but rather to gain a better, more detailed understanding of the topic.

Future Research

The exploratory nature of this research leaves room for future studies that can build upon this information. Little research has studied childhood obesity coverage in the media and a still smaller group has explored how this coverage is used by different populations, such as parents. Future studies might consider separating participants into focus groups with similar participants based on factors such as the mother's age or number of children, and comparing the results. A study dealing with one specific type of publication, such as parenting magazines, might also reveal different results. Socio-economic factors, such as racial differences or mothers living in different areas of the country, could be considered for future research. Exploring the feelings of these groups may aid in revealing ways to make the information more accessible to all groups of mothers and thereby raise awareness of issues such as childhood obesity.

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APPENDICES

Appendix A

Interview questions

Questions about Magazines and Newspapers:

- What types of magazines and newspapers do you read?
- What magazines and newspapers do you subscribe to?
- Why do you read magazines and newspapers?
- What types of health-related articles/information do you read in magazines and newspapers?
- Do you ever read articles about childhood nutrition?
- What information do you typically find in the childhood nutrition articles?
- How do you use childhood nutrition information found in magazines and newspapers?
- What typically happens when you apply tips or advice from magazines and newspapers?

Questions about Childhood Nutrition:

- How many children do you have?
- When you need or want advice about childhood nutrition, where do you look?
- How do you make decisions concerning nutrition for your children?
- Who purchases groceries/meals for your family?
- How do you plan meals for your family?
- How important is nutrition in planning your family's meals?

Questions about childhood obesity:

- How do you feel about childhood obesity?
- What precautions can you take to prevent childhood obesity?
- Do you feel there is enough information offered about preventing/treating childhood obesity?
- Who is responsible for preventing/treating childhood obesity?
- What could magazines and newspapers do better cover childhood obesity?

Vita

Carrie Suzanne Baker is a North Carolina native and earned her bachelor's degree in communication from Appalachian State University in Boone, North Carolina. After moving to Knoxville, Carrie continued to pursue her interest in journalism, specifically magazines and graphic design, at the University of Tennessee. She has enjoyed her time as a UT Volunteer and looks forward to the next adventure in her life as she gets married in November.