

**AFRICAN AMERICAN FATHERS' PERCEPTIONS OF CHILDHOOD
OVERWEIGHT: AN EXPLORATORY STUDY**

A Dissertation

by

VANESSA MICHELLE BYRD

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

December 2010

Major Subject: Health Education

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Study

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ABSTRACT

African American Fathers' Perceptions of Childhood Overweight: An Exploratory
Study. (December 2010)

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Childhood overweight/obesity (CHO) is a serious health concern for children and adolescents. Despite increased efforts to prevent CHO, prevalence rates have actually increased. Evidence suggests that parents are critical to successful interventions to reduce CHO among children. While research efforts aimed at parental inclusion have increased, limited research has been conducted to investigate fathers' perception of CHO, or their influences on their children's health. The objective of this two-phase study was to answer three research questions: a) How does the extant literature operationalize African American parental perceptions of childhood overweight/obesity? b) What are African American fathers' perceptions of CHO? and c) How do African American fathers perceive CHO in relation to their own child's weight status?

Evidence-based studies reveal that fathers have the potential to play a significant role in CHO prevention. Phase one (literature review) revealed that published studies on parental perception of CHO either exclude fathers, include them only in data collection, and/or report no results specific to paternal perception. Thus,

an exploratory qualitative study was needed to explore African American fathers' perceptions of CHO.

In phase two (qualitative study), four fathers were interviewed about their perceptions of CHO and how they contextualize this problem. The results indicated fathers believe that weight categories are racially & culturally insensitive and do not account for individual health status or differences in body/bone structure, and that parents with overweight children are financially disadvantaged, irresponsible and overworked. Fathers also indicated that colloquial terms (e.g., chunky, husky, big-boned, thick) were commonly substituted medical definitions for overweight and that child/teen sports participation was motivated by health, as well as non-health related benefits (e.g., competitiveness, educational scholarships). Further, fathers' identification of CHO is subjective and includes visual means and parental assessment of health status (e.g., child mobility/activity levels). Implications of this study are that additional studies are needed to clarify fathers' roles in CHO and that future studies should consider complex familial structures, as well as reframe prevention efforts to focus on optimal child health as opposed to weight labeling and focusing on parents' accuracy in identifying weight categories.

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To all of my family and friends - you are my strength and my backbone. You have held me up and stood by me - I love you all!

NOMENCLATURE

AROW	At-Risk-for-Overweight
BMI	Body Mass Index
CDC	Centers for Disease Control
CHO	Childhood Overweight
IOM	Institute of Medicine

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CHAPTER I

INTRODUCTION

Background

Obesity is a serious health concern for children and adolescents. During their youth, obese children and adolescents are more likely to have risk factors associated with cardiovascular disease (e.g., high blood pressure, high cholesterol, Type 2 diabetes) than are other children and adolescents (Freedman, Zugno, Srinivasan, Berenson & Dietz, 2007). In addition to immediate health consequences, obese children and adolescents may be at risk for early onset of weight-related health problems in adulthood (United States Department of Health and Human Services, Office of the Surgeon General, 2001).

Mental health risks are also associated with obesity. Young people are at risk of developing serious psychosocial burdens related to being obese in a society that stigmatizes this condition, often fostering shame, self-blame, and low self-esteem that may impair academic and social functioning and carry into adulthood (Schwartz & Puhl, 2003).

The Centers for Disease Control (CDC) issues a statement of national health objectives designed to identify the most significant preventable threats to health and

This dissertation follows the style of *Health Education & Behavior*.

establish national goals to reduce these threats. CDC's most recent statement, *Healthy People 2010*, identified overweight and obesity as 1 of 10 leading health indicators and called for a reduction in the proportion of children and adolescents who are overweight or obese (United States Department of Health and Human Services, 2001). However, despite increased efforts to prevent childhood obesity, prevalence rates have actually increased.

The National Health and Nutrition Examination Survey (NHANES) is used to monitor progress toward reducing the national prevalence of overweight and obesity. Data from NHANES surveys (1976–1980 and 2007–2008) show that for children aged 6–11 years, prevalence of overweight and obesity increased from 6.5% to 19.6% (Ogden, Carroll & Flegal., 2008). The same data source reveals that among adolescents aged 12-19, obesity increased from 5% to 18.1% during the same period. These prevalence figures are more than three times the target prevalence of 5% set in *Healthy People 2010*.

While childhood obesity (CHO) has increased significantly throughout the general population, children from minority communities have been disproportionately affected. Currently, 34.9 % of African-American children ages 2 to 19 are overweight or obese, compared with 31.9 % of all children those ages (Ogden et al., 2008). Among African-American children, 14.9 % of those ages 2 to 5 already are obese (Ogden et al., 2008). Over nearly two decades, the prevalence among all adolescents climbed from 10.5 % to 17.6 %. For African-American adolescents, the prevalence of obesity rose from 13.4 % to 22.9 % (Ogden, Flegal., & Carroll, 2002; Ogden et al., 2008). When

looking specifically at African- American adolescent girls, the statistics are even more alarming. By 2003-2006, 27.7 % were obese – the highest prevalence of any age group by gender or race/ethnicity. By comparison, fewer than one in five (20 %) of Mexican- American or white adolescent girls was obese (Ogden et al., 2008).

Prevention

CHO is the result of an imbalance between the calories a child consumes and the calories a child uses to support normal growth and development, metabolism, and physical activity. This imbalance between calories consumed and calories used can result from the influences and interactions of a number of factors, including genetic, behavioral, and environmental factors (USDHHS, 2001). Home, child care, school, and community environments can influence children's behaviors related to food intake and physical activity (Institute of Medicine, 2005).

To prevent overweight/obese children from becoming overweight/obese adults, efforts to reduce the prevalence of CHO need to start early in childhood. One study found that 25% of obese adults were overweight as children (Freedman, Khan, Mei, Dietz, Srinivasan & Berenson, 2002). The same study also found that if overweight begins before 8 years of age, obesity in adulthood is likely to be more severe.

Increased CHO rates over the past two decades have been attributed to complex social, environmental, and policy factors that influence eating behaviors and physical activity (IOM, 2005). Undoubtedly, reducing obesity is critical to the health, well-being and future of the nation's youth. Through prevention efforts initiated

during early childhood, health ramifications associated with being overweight and obese may be reduced and preventable healthcare costs may be eliminated.

Importance of Parents

Evidence suggests that parents are critical to successful overweight intervention among children. Parents can influence their children's dietary intake (Davison & Birch, 2001), level of physical activity (Aarnio, Winter, Peltonen, Kujala, & Kaprio, 2002), sedentary habits (Sallis et al., 2003) and body satisfaction by controlling availability and accessibility of foods, meal structure, food socialization practices, and overall parenting style. Parental knowledge of nutrition and modeling of behaviors and attitudes are also influential (Davison & Birch, 2001). Parents control access to food and physical activity programs, as well as model behaviors involving food purchasing, preparation and consumption, TV viewing, and physical activity participation (Golan & Weitzman, 2001).

Moreover, research has found a strong link between parents' weight status and the weight status of their children. For example, research has shown that one obese parent triples the risk of a child becoming obese in adulthood; while both parents being obese increases the risk by 10 times or greater. In fact, before the age of 3, parental weight is more of a risk factor for developing obesity than the child's actual weight (Dietz, 1998; Ogden et al., 2006; Whitaker, Wright, Pepe, Seidel, & Dietz, 1997).

Call to Include Parents

In light of the fact that CHO is an increasing epidemic and parental involvement has been found to be one of the most influential factors in laying the foundation for

prevention of early childhood weight problems (Doolen, Alpert, & Miller, 2009), it is not surprising that major medical and health organizations have issued a call to increase the inclusion of parents in future research and prevention efforts.

In January of 2007, The American Medical Association convened an Expert Committee to make recommendations on the assessment, prevention, and treatment of child and adolescent overweight and obesity. Among the recommendations of the report, The American Medical Association's Expert Committee (2007) recommended these specific parent-focused components:

. . .that the treatment of overweight children be approached in a staged method based upon the child's age, BMI, any related comorbidities, weight status of parents, and progress in treatment, and that the child's primary caregivers/families be involved in the process.

Similarly, in August of 2007, the National Heart, Lung and Blood Institute (NHLBI) Issued a Working Group Report on Future Research Directions in Childhood Obesity Prevention and Treatment (2007). Among the recommendations from the report are three research recommendations for behavioral and lifestyle interventions to treat obese children:

- 1) identify family dynamics which predict success of certain interventions and changes in family dynamics and relationships that are associated with favorable treatment outcomes;
- 2) identify utility of and methods for promoting self-monitoring of target behaviors by parents and children; and

3) investigate strategies to effectively recruit families into family-based interventions.

These recommendations set the stage for an increase in parent-focused interventions and research.

Need for the Study

Obviously, parents can play an important role in terms of influencing and modeling appropriate health behaviors. However, while research efforts aimed at parental inclusion have increased, limited research has been conducted to investigate fathers' perception of CHO or their influences on their children's health.

Interestingly, findings of the few paternal studies that have been undertaken indicate that fathers indeed have the potential to play a significant role in CHO prevention. Although general information on the effects of fathers' serving as health liaisons is scarce, studies have explored association between father and child physical activity levels and body mass index (BMI) levels. One investigation on dietary intake and physical activity of parents, and their daughters, revealed father's BMI to be the strongest predictor of daughter's BMI (Davison & Birch, 2001). These findings were consistent with findings reported by others (Figuroa-Colon, Arani, Goran & Weinsier, 2000).

Further, fathers' parenting style (e.g., setting limits, maintaining boundaries) has been found to more greatly impact children's BMI as compared to mothers' parenting style (Wake, Nicholson, Hardy & Smith, 2007). Similarly, studies indicated father's physical inactivity to be a strong predictor of children's inactivity,

while also finding sedentary behaviors among mothers were not. (Fogelholm, Nuutinen, Pasanen, Myohanen & Saatela, 1999; Trost, Kerr, Ward, & Pate., 2001).

What's more, findings suggest that increases in body weight are continuing in men and in children and adolescents while they may be leveling off in women. In fact, the prevalence of overweight among children and adolescents and obesity among men increased significantly during the 6-year period from 1999 to 2004; but among women, no overall increases in the prevalence of obesity were observed (Ogden et al., 2002). Findings, such as these, further accentuate the need for studies involving men and weight, particularly men who are fathers.

The few studies described above indicate that fathers have great potential to impact their children's health status and factors contributing to child overweight. However, more research is needed. With such a paucity of available information, it is almost impossible to know where to start. Fathers' perception has been selected as a starting point, since it is hypothesized that if fathers do not perceive that CHO is a problem, or perceive that their own children are either overweight or at-risk-for-overweight, it may be less likely that they will take action. For this reason, studies are needed in order to identify and explore fathers' perceptions of CHO with relation to their own children's weight status, as well as their perception of the causes and treatment of CHO within the home environment. This study will begin the process by gathering qualitative data that will illuminate fathers' perception of CHO and provide a basis from which to theorize on future inclusion of fathers in CHO prevention.

Statement of Research Problem

In spite of the plethora of research examining associations among parental factors and CHO, there is little systematic examination of ‘parental’ perceptions - in particular fathers’ perceptions - as a factor in CHO investigations. In other words, little is known about the types (quantitative, qualitative, descriptive, etc.) and numbers of studies utilizing parental perceptions and even less on how parental perceptions (with emphasis on fathers) are defined, operationalized and utilized.

It is critical to clarify parents – especially paternal perceptions in CHO research, as understanding parents’ (especially fathers’) perceptions is vital for effective social, environmental, and behavioral interventions on childhood obesity as well as for including fathers in familial based prevention strategies across the board.

Research Questions

This overall purpose of this study is to explore African American fathers’ perceptions of overweight children. This will be accomplished via a two-phase study.

Phase one will consist of an integrative literature review. The primary purpose of this phase is to explore and describe the research literature focused on parental perceptions of their child's weight status, specifically focusing on identifying factors related to paternal perception of overweight status in children.

The following research questions will be addressed in phase one:

1. How does the extant literature operationalize African American parental perceptions of childhood overweight/obesity?
 - a. How are maternal perceptions operationalized?

- b. How are paternal perceptions operationalized and how do they differ from maternal?

Findings from phase one will serve to inform the subsequent exploratory research in phase two.

Phase two will consist of a qualitative, exploratory study. The primary focus of phase two is to explore African American father's perceptions of CHO with a focus on understanding the factors that fathers perceive as contributing to CHO (in their own children or in others) within the home environment and how medical definitions of CHO coincide with fathers' perception and/or definitions of child weight status.. The following research questions will be addressed in phase two:

1. What are African American father's perceptions of CHO?
2. How do African American fathers perceive CHO in relation to their own child's weight status?
 - a. Do medical definitions of CHO coincide with fathers' perception and/or definitions of child weight status?
 - b. What factors do fathers perceive as contributing to CHO (in their own children or in others) within the home environment?

Definition of Terms

At-risk-for-overweight (AROW) – A child with a BMI at or above the 85th percentile and lower than the 95th percentile (Barlow, 2007).

Note: The term AROW appears in older studies, however, in 2007, CDC's Expert Committee recommended the use of the terms overweight and obese to

describe patients between the 85th-94th percentiles and > 95th percentile, respectively. This was a change from using the terms “at-risk” for overweight and overweight to describe the same BMI percentiles (Krebs et al., 2007, p. 3).

BMI - a measure of weight in relation to height that is used to determine weight status - as determined based on an age- and sex-specific percentile (Barlow, 2007).

Childhood obesity is defined as a BMI at or above the 95th percentile for children of the same age and sex (Barlow, 2007).

Childhood overweight is defined as a BMI that is at the 85th to less than the 95th percentile (Barlow, 2007).

Childhood underweight is defined as a BMI that is less than the 5th percentile (Barlow, 2007).

Healthy weight is defined as a BMI that is above the 5th percentile, but less than the 85th percentile (Barlow, 2007).

Married, residential father – a father who is married and is living in the home with his children

Maternal – of or relating to a mother

Parental – of or relating to parents

Paternal – of or relating to a father

Paternal influence is defined as any opinion, attitude, or action - including direct communication - that somehow shapes or molds the child’s actions related to CHO.

Single, custodial father – a father who has custody of his children and lives in the house with them

Single, non residential father – a father who is not married and is not living in the house with his children

Study Limitations and Delimitations

Limitations for phase one of the study include the fact that there is a possibility of not retrieving all the articles due to the search strategies employed during the identification and screening process. Additionally, the review will focus on studies conducted in the United States. A comparative analysis of studies conducted in other countries might lead to some additional findings. Limitations of phase two include the fact that findings from this study may not be transferable to other settings. Moreover, this study is confined within three counties in Texas – Harris, Waller and Brazos, all of which contain public universities which may add to the health literacy level of the participants. Further, the areas are all heavily researched, which may affect the level of awareness that participants have of research procedures, leading to more ‘experienced’ participants (Clark, 2010). Almost all of the participants were recruited with the help of key informants, which may introduce bias, since the circle of friends may have commonalities particular to their social group. The data gathered from these participants cannot represent the responses of all African American fathers in this area, much less all African American fathers in the United States. Lastly, as an African American woman, I bring my own experience with the phenomenon and the groups being studied into the research. Although I disclose my beliefs, values and perceptions throughout the research, to some extent, my position may affect the data collection and result in bias.

Researchers' Perspective

I approach qualitative research with the knowledge that I am a key 'instrument', in the research process. Therefore, I am committed to employing reflexivity, as well as disclosure of my position, perspective, beliefs and values in order to disclose my preconceptions from the beginning of the research and throughout the process. As Malterud (2001) writes: "*Preconceptions are not the same as bias, unless the researcher fails to mention them*" (p. 484). My knowledge, beliefs, values and perceptions based on my personal and professional experiences, as well as prior research that I have reviewed on men's, children's and women's health and obesity influence this research.

Overview of Chapters

This dissertation consists of five chapters and utilizes the traditional dissertation format. Chapter I includes an introduction to the study, including background information and need for the study, statement of research problem, an overview of the two phases of the study, research questions, definition of terms and the study limitations. Chapter II involves phase one of the study - an integrative literature review. Chapter III outlines the research design and methodology for phase two. Chapter IV presents the emergent themes from the qualitative study. Chapter V involves a discussion of the findings and suggestions for future research.

CHAPTER II

LITERATURE REVIEW

Purpose

The primary purpose of this literature review was to explore and describe the research literature focused on parental perceptions of their child's weight status. A specific focus is on overweight children and parental accuracy in identifying this health risk in their children. Additionally, an emphasis of the review was to examine findings specific to paternal perception of child weight status. Findings of this review will serve to inform the subsequent qualitative research on paternal perception of child weight status. This is an atypical literature review in that its primary purpose is to serve as the first phase (phase one) in a two-phase study. As such, it is very specific to exploring the existing literature in order to inform the subsequent qualitative study in phase 2.

Background

What parents think and believe about their child's weight may have an impact on the physical activity and nutrition practices that they employ in the home. Further, if parents perceive that their children are overweight or obese, it stands to reason that they may be more compliant and open to treatment options aimed at helping them achieve optimal health. For this reason, parents' perception of child weight is a very important factor in education and treatment. As well, for health educators and other clinicians, it is helpful to understand parents' perceptions, knowledge level, understanding and beliefs

surrounding childhood overweight and obesity, as these factors aid in developing teaching and treatment strategies.

Although it is clear that parental perception is likely to be an important factor in recognizing, treating and preventing CHO - parental perception may not coincide with current clinical definitions for overweight and obesity in children. Clinicians determine child weight status in the United States using several factors. One widely used screening tool - Body Mass Index (BMI), is used to identify possible weight problems in children (Centers for Disease Control and Prevention, 2008).

Once BMI is calculated, via a formula that uses child height and weight, the resulting number is used to obtain a percentile ranking. The percentile indicates the relative position of the child's BMI number among children of the same sex and age. Percentiles are the most commonly used indicator to assess children's size and growth patterns (CDCP, 2008). The growth charts show the weight status categories used with children and teens (underweight, healthy weight, overweight, and obese). BMI-for-age weight status categories and the corresponding percentiles are shown in Table 1.

Table 1. Child BMI Weight Status and Corresponding Percentile Range

Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

Source:http://www.cdc.gov/healthyweight/assessing/bmi/childrens_BMI/about_childrens_BMI.html

BMI rankings and definitions, however, do not necessarily coincide with parental perception of child weight status. Indeed, research indicates that the majority of parents of preadolescent children fail to accurately perceive the weight of their at-risk-for-overweight or overweight child (Doolen et al., 2009).

The National Poll on Children's Health (2007), noted that parents often don't recognize obesity in their children. The poll, of 2,060 adults (authors report that parents made up about two-thirds of the sample, $n \approx 1370$), revealed a mismatch between children's obesity and parents' recognition of their child's obesity. Polled parents reported their oldest child's gender, height and weight. Using those figures, I calculated each child's BMI. Based on this data, the researchers noted that, although parents acknowledged and recognized childhood overweight and obesity as a problem, many did

not acknowledge or recognize overweight or obesity as a problem in their own overweight kids. Poll result highlights included:

- Less than 10 percent of parents of obese children, ages 6 to 11, were very concerned about their children's weight.
- More than 40 percent of parents with obese children, ages 6 to 11, perceive their children's weight status as weighing about the right weight.

(National Poll on Children's Health, Dec. 10, 2007).

Due to the obvious need for parents to accurately recognize child's weight status, parental perception is a major area of emphasis for studies involving childhood obesity. This literature review synthesizes the main research that has been conducted in the area of parental perception with regards to studies that focus on parents as a unit (parental-focused) and maternal-focused studies (no paternal focused studies existed at the time that this literature review was conducted).

Methods

This integrative review followed the scientific guidelines for conducting research reviews by Cooper (1998). The purpose of an integrative review is to synthesize and summarize current research evidence. Cooper (1998) outlined five stages in the integrative review process: (a) formulation of the problem, (b) literature search, (c) evaluation of data, (d) data analysis and interpretation and, (e) presentation of findings. The process for this review involves rigorous methodological initiatives to generate a comprehensive analysis of the body of the literature on parental perception of child weight status, with an emphasis on identifying factors influencing paternal perception.

Database Search

To access the research of parental-focused, maternal-focused and paternal-focused studies that investigated perception of their children's weight, several key words were used in as displayed in Table 2.

Table 2. Key Words Used in Literature Search

Parental perception key words	<i>parental, parents, perception, perceive, recognize, childhood obesity and overweight.</i>
Maternal perception key words	<i>maternal, mother, mom, perception, perceive, recognize, childhood obesity and overweight.</i>
Paternal perception key words	<i>paternal, father, dad, perception, perceive, recognize childhood obesity and childhood overweight</i>

For each search, key words were entered in EBSCO, PubMed and CINAHL databases. Additionally, 'purling', which is a technique that involves performing a review of all references and citations of retrieved articles, was completed to ensure that all relevant articles were retrieved (Garrard, 2004).

Inclusionary/Exclusionary Criteria

For each search, articles were selected based on the following inclusion criteria:

(a) assessed parental, maternal or paternal perception of weight status of children aged 2

- 12 of any ethnicity, (b) published in the past 12 years (1996–2008), (c) quantitative or qualitative studies, (d) US studies only (e) studies written in English. Pilot studies were not included. Research studies focused on eating disorders, clinical intervention or metabolic syndrome were excluded. Articles were read in full to determine if they met the inclusion criteria of the study. Twenty-seven articles were found and reviewed but 14 were eliminated because they did not meet the above criteria. Thirteen studies met the inclusion criteria.

Instrumentation

A coding matrix was developed to standardize the data extraction methods applied to the reviewed studies. The matrix was designed to guide the identification and assessment of methodological characteristics among reviewed articles, including identification of key factors associated with parental perception of child weight status. The matrix details the type of information extracted from reviewed studies (e.g., study design, theoretical framework).

Data Extraction

Characteristics of the reviewed articles (e.g., purpose of study, study design, theoretical framework) were entered into the coding matrix. Articles were categorized based on maternal or parental focus. Parental focused studies were those that were identified in the title or body of the study as having a focus on parents and maternal studies were those that were identified in the title or body of the article as having a focus on mothers. Additionally, for purposes of informing a planned qualitative study, potential factors (e.g., perception of girls overweight status versus boys overweight

status) to investigate are identified for possible use as probes during the in-depth interviews in phase two of the study. Study designs, sample populations, theoretical framework, factors measured, instruments used and major findings are displayed in the matrix in corresponding sections.

Results

Retrieved articles - parental-focused studies

The search for parental perception revealed 6 articles that matched the inclusion criteria. These studies all investigated parental perception of their child's weight and were mainly focused on preadolescent children (pre-K –6th grade) and their parents. The 6 studies revealed that the majority of parents failed to accurately perceive the weight of their at-risk-for-overweight or overweight child.

Retrieved articles - maternal-focused studies

The search for maternal perception revealed 7 articles that matched the inclusion criteria. These studies all investigated maternal misperception of their child's weight and were mainly focused on children (3–12 years old) and their parents. The 7 studies revealed that the majority of mothers failed to accurately perceive the weight status of their at-risk-for-overweight or overweight child (see Table 3, below).

Table 3. Matrix of Maternal Studies

Lead Author, year	Study Design	N	Sample	Theoretical Framework	Relevant Factors Measured	Instruments (Measure & Method)	Major Findings of Main Factors Investigated	Resulting questions for fathers' study
<u>Baughcum, 2000</u>	cross-sectional	622	Mothers with children 23 to 60 months of age from Ohio & Kentucky private pediatrician's offices.	d) No theory named, no evidence of constructs used.	Maternal perception of child weight	Questions on a Self-administered questionnaire	79% of mothers failed to perceive their overweight child as overweight.	Is there a relationship between father's education level and perception of overweight in children?
<u>Hackie, 2007</u>	cross-sectional	38	Caregivers of 2 to 5 year olds recruited from the Southern Nevada Health Center WIC sites.	d) No theory named, no evidence of constructs used.	Mothers perception of child weight status	The Parental Perception of Pediatric Obesity Questionnaire developed by Myers and Vargas (2000)	61.5% did not recognize their overweight children as being overweight.	Does father's perception of weight vary based on child's gender?
<u>Killion, 2006</u>	cross-sectional	192	African-American and Hispanic, nonpregnant mothers of 3-5 year olds in Southeast Texas Head Start	d) No theory named, no evidence of constructs used.	Mothers' perceptions of their children's body size	BMI specific child figure silhouettes depicting 4 and 5 year-old African-American and Hispanic Children	Significant differences were found between mothers' perceptions of their children's body size and the actual body size of the children. On average, mothers perceived their children to be thinner than their actual size.	Do fathers perceive their children to be thinner than their actual size? Do pictures or descriptions (e.g., child silhouettes) help fathers identify overweight in their children?
<u>Jain, 2001</u>	cross-sectional	18	Low-income mothers (13 black, 5 white) of preschool children (mean age of 44 months) who were at-risk for later obesity.	d) No theory named, no evidence of constructs used.	Parents perceptions of overweight status in their children.	Questions on a Telephone questionnaire, Focus group interviews	Mothers did not define child overweight or obesity according to height and weight measurement on the standard growth charts.	What other factors contribute to fathers recognizing CHO? Does self-esteem play a factor? 'Healthy' look? Activity level?

Table 3. Continued

Lead Author, year	Study Design	N	Sample	Theoretical Framework	Relevant Factors Measured	Type of Instrument (Measure & Method)	Major Findings of Main Factor Investigated	Resulting questions for fathers' study
<u>Maynard, 2003</u>	cross-sectional	5500	Mothers of children 2-11 who participated in the NHANES	d) No theory named, no evidence of constructs used.	Maternal perception of weight status	2 Questions from the NHANES survey	Nearly one third (32.1%) of mothers reported their overweight child as "about the right weight."	What weight level causes concern in fathers? Is this visible? Calculated through charts?
<u>Moore, 2008</u>	cross-sectional	77	Mothers of 2 - 17 years olds through the West End Medical Centers Inc., a federally qualified health center in Atlanta, Georgia.	b) Named and partially utilized or utilized inaccurately (Health Belief Model)	Mothers perception of child weight status	Questions from the Morehouse School of Medicine Obesity Health Belief Survey	53% of mothers underestimated their AROW daughter's weight status. 19% of mothers underestimated their overweight daughter's weight status. Only 20% of mothers reported that their overweight child was overweight.	Is there are difference in fathers' perception of excess weight on girls vs. boys?
<u>Reifsnider, 2006</u>	cross-sectional	25	mother-child dyads of 3-year-old children at two Head Start Centers in a county on the Texas-Mexico border. All mothers self-identified as Hispanic	d) No theory named, no evidence of constructs used.	Mother's perception of child weight status	Photographs of children taken from the CDC Growth Chart Training Modules representing a 3-year-old overweight boy, a 4-year-old at-risk-for overweight girl, and a 4-year-old normal weight girl.	Thirty-six percent of the mothers were correct in matching their child's BMI to the appropriate picture of BMI: 16% were congruent with matching their normal-sized children to the normal-sized BMI picture and 20% were congruent with matching their overweight children to the overweight child BMI picture. Thirty-six percent of mothers chose a BMI picture that was heavier than their children actually were, and 29% chose a BMI picture that was lighter than their children actually were.	Do pictures of overweight children help fathers identify weight problems in their own children?

Summary of Parental Articles

As mentioned above, parental-focused studies all investigated parental perception of their child's weight with most emphasis on pre-adolescent children (pre-k –6th grade) and their parents. In addition to overweight or obese status, many studies also investigated parent's ability to perceive the weight status of their at-risk for overweight (AROW) child (Jain, Sherman, Chamberlin, Carter, Powers, & Whitaker, 2001; Eckstein et al., 2006; Killion, Hughes, Wendt, Pease, & Nicklas, 2006; Maynard, Galuska, Blanck, & Serdula, 2003, Moore, Harris, Watson & Wimberly, 2008) . The term "at risk of being overweight" is defined as BMI above 85% but less than 95% (Barlow, 2007). However, as mentioned in previous chapters, the term AROW to depict children who fall in these weight percentiles was changed by CDC in 2007 to 'overweight', in order to alleviate confusion over having two names for the same weight status (Krebs et al., 2007 p. 3). All 6 studies revealed that the majority of parents failed to accurately perceive the weight of their at-risk-for-overweight or overweight child (see Table 4 below).

For example, in 2008, West et al. conducted a longitudinal study utilizing a statewide telephone survey of parents of public school children in Arkansas (n= 3069). This study was designed to examine parental perception before and after the implementation of state legislation that included child BMI screening and provided parental feedback. The results revealed that before and after parents received the results of their child's BMI screening, parental perceptions of their child's weight status was inaccurate. At baseline, 63% of parents inaccurately assessed child weight.

Table 4. Matrix of Paternal Studies

Lead Author, year	Study Design	N	Sample	Theoretical Framework	Relevant Factors Measured	Type of Instrument (Measure & Method)	Major Findings of Main Factor Investigated	Resulting questions for fathers' study
West, 2008	Longitu-dinal	T1: = 1,551 T2: = 2,508	Parents of public school children in Arkansas.	c) none named, but easily identifiable constructs used - (perceived risk)	Parental perceptions of child's weight status - pre and post intervention	Questions on a Statewide telephone survey	Most (60%) parents of overweight children underestimated weight at baseline. Intervention saw some improvement more in blacks	Do programs aimed at educating parents about child weight status affect father's perception?
Etelson, 2003	Cross-sectional	83	Parents of children mean age - 5.8 attending a private pediatric practice in suburban New York.	a) no theory named, no evidence of constructs used	Parental perception of child's weight	Questions on a questionnaire	Only 10.5% of parents of overweight children perceived their child's weight accurately.	Does father's perception of weight vary based on child's gender?
Myers, 2005	cross-sectional	200	Majority Hispanic (95%) parents of 2-5 y/o, with weight above the 90th percentile in Arlington, Virginia,	d) none named, but easily identifiable constructs used (HBM, barriers)	Parental perception of child weight status	Questions on a parent questionnaire	35.5% of parents of obese children did not perceive that their child was obese.	Can constructs of the HBM be used to help understand fathers' perception of CHO?
Adams, 2005	Cross-sectional	366	child-caregiver dyads of children in K-2	d) none named, but easily identifiable constructs used (perceived risk)	Caregiver's perception of child weight status	Questions on a caregiver surveys	Caregivers recognized only 15.1% of overweight children.	Are fathers' perceptions of CHO influenced by other caregiver's perception?
Eckstein , 2006	Cross-sectional	223	parents of children 2-17	d) No theory named, no evidence of constructs used.	Parental recognition of child weight by words and sketch selection	Questions on a survey, sketches of children at various weights	Few parents (36%) identified their overweight or AROW child as "overweight" or "a little overweight" using words, but more (70%) selected a middle or heavier sketch.	Does fathers' perception of CHO and medical professionals' perceptions coincide?
Goodell, 2008	Cross-sectional	73	Latinos, African Americans, and West Indian parents of preschoolers in Hartford, Connecticut.	d) No theory named, no evidence of constructs used.	Parents' perception of child weight status	Interviews via focus groups	Parents did not perceive overweight as a problem with their children.	Do fathers perceive CHO as a problem in other children but, not necessarily in theirs?

One year after implementation of the legislation providing the child's actual BMI, 53% of parents still inaccurately identified their child's weight status as less than the actual weight.

Similarly, in 2003, Etelson, Brand, Patrick, & Shirali administered a questionnaire to 83 parents of children between 4 and 8 years of age. This sample consisted of parents of 40 boys and 43 girls, attending a private pediatric faculty practice in suburban New York. In addition to recognition of obesity in their children, this study assessed parents understanding of weight as a health risk and their knowledge of healthy eating habits. Etelson et al (2003) found that only 10.5% of parents with overweight children perceived their child's weight accurately.

Adams, Quinn & Prince (2005) found the same in their study of child-caregiver dyads of children in K- 2nd grade. This Wisconsin based cross-sectional study of Native Americans included grandmothers (9.7%), in addition to parents. The dyads completed caregiver surveys designed to assess concern for health risk factors associated with excess weight and to assess caregiver recognition of child overweight status. The results indicated that only 15.1% of overweight children were categorized appropriately by the participants.

Another cross-sectional study, conducted in 2000 by Myers & Vargas, focused on parents of 2-5 year olds, who attended a WIC clinic in Arlington, Virginia. The study sought to gain understanding of parents' perceptions and beliefs about CHO, including beliefs about their own child's obesity. Results of this questionnaire indicated that over one-third (35.5%) of parents of obese children failed to recognize their child as obese.

Unlike the other studies, that only focused on parental perception, Myers & Vargas (2000) not only studied the parents' perceptions, but also gathered data on the WIC staff's perception of the overweight children in the study. Interestingly, the WIC staff also had problems accurately identifying overweight children (18.7% incorrectly identified obese children as not obese), even when they were unmistakably obese according to the clinical growth charts.

Goodell, Pierce, Bravo & Ferris (2008) conducted focus groups and individual interviews in order to assess parents' perception of their children's weight. Parents of 151 children ranging in age from 2 to 12 years were included in this cross-sectional study. Goodell et al. (2008) found that one half of the parents did not perceive their children as being AROW or overweight.

Summary of Maternal Articles

As mentioned above, the search for maternal perception of child weight status revealed 7 studies that investigated maternal misperception of their child's weight, mainly focused on children (3–12 years old) and their parents. The 7 studies revealed that the majority of mothers failed to accurately perceive the weight of their at-risk-for-overweight or overweight child.

Baughcum, Chamberlin, Deeks, Powers & Whitaker (2000) assessed 622 mothers with children aged 23–60 months. Of the mothers, 278 were from Ohio private pediatrician's offices and 344 were from Kentucky WIC clinics. This cross-sectional study used self-administered questionnaires to assess mother's perceptions of their

children's weight status. Baughcum et al. (2000) found that 79% of the mothers in the study failed to perceive their overweight child as overweight.

Hackie & Bowles's 2007 cross-sectional study also recruited participants from WIC sites. These 38 caregivers of 2 to 5 year olds were recruited from a Southern Nevada WIC clinic. In order to assess mothers' perception of child weight status, Hackie & Bowles (2007) used The *Parental Perception of Pediatric Obesity Questionnaire* developed by Myers & Vargas (2000). Using this instrument, Hackie & Bowles (2007) found that 61.5% did not recognize their overweight children as being overweight.

A 2006 study by Killion et al. differed slightly in focus, as the purpose was to identify mother's perception of their children's body sizes using child figure silhouettes depicting 4 and 5 year-old children. Unlike most of the other studies, the focus was on size and not weight. The study assessed 192 non pregnant, Hispanic mothers of 3 to 5 year olds in Head Start centers located in a suburban Southeast Texas who were part of a larger study investigating parental feeding practices. Killion et al. (2006) found significant differences between mothers' perceptions of their children's body size and the actual body size of the children. On average, mothers perceived their children to be thinner than their actual size.

Jain et al., 2001 qualitative study explored mothers' perception of their children's sizes, and also examined mother's views of child growth, diet, activity and health. Jain et al's (2001) sample included 25 mother-child dyads of 3 year olds at Head Start Centers on the Texas-Mexico border. Similar to the Killion et al. (2006) study, this study used

visual aids, in the form of photographs, to elicit mother's perception of child body size. Results showed no congruence between respective mother's perceptions of their child's size in the pictures and their children's actual body size.

Maynard et al. (2003) used data from The Third National Health and Nutrition Examination Survey (NHANES), to assess maternal perception of their child's weight. The NHANES III is a program of studies designed to assess the health and nutritional status of adults and children in the United States (CDC, 2009). The sample for this cross-sectional study included 5500 children ranging in age from 2 to 11 years with maternal interview data. Nearly one third (32.1%) of mothers reported their overweight child as being within the normal weight range.

Moore et al. (2008) conducted a cross-sectional study of 77 mothers of 2 - 17 years olds through a federally qualified health center in Atlanta, Georgia. This study utilized the Morehouse School of Medicine Obesity Health Belief Survey, which was developed by the authors, in order to examine maternal perception of child weight status. Unlike any of the other studies, Moore et al's (2008) study specifically focused on daughters. The authors also sought to determine if physician diagnosis of overweight was associated with accurate maternal perception of daughter's weight. Among the girls who were AROW, 53% of mothers underestimated their daughter's weight status. Among overweight girls, 19% of mothers underestimated their daughter's weight status (reported them to be normal weight), and 60% of mothers underestimated the magnitude of their daughter's weight status (reported them as only "a little overweight").

Reifsnider et al. (2006) investigated mother's perception of child weight status in a cross-sectional study of 25 mother-child dyads of 3-year-olds. This study also used visual means (photographs of children) and required the mothers to examine the photos and answer questions about child weight status. Photographs represented a 3-year-old overweight boy, a 4-year-old at-risk-for overweight girl, and a 4-year-old normal weight girl. Twenty-nine percent of mothers chose a BMI picture depicting a child that was lighter than their children actually were.

Discussion

Factors Related to Perception of Child Weight Status

Seven major factors relating to perception of child weight status were identified in the articles: child's age, gender and BMI; parents' BMI, educational level, SES, race/ethnicity and gender (see Table 5 below).

Child's Age

Six studies examined child's age as a factor in perception of child's weight. Three of the studies, Adams et al., 2005; Baughcum et al., 2000 & Hackie et al., 2007, found no significance when examining the influence of child age on parental perception. However, Eckstein et al's (2006) cross-sectional study concluded that child's age was significant. Findings from the study indicated that parents of children older than 6 were more likely to correctly identify their child as "overweight" or "a little overweight". Similarly, a study by Maynard et al. (2003), which assessed parents of children aged 2 to 11; found that for children at risk of being overweight, mothers were less likely to classify older children as overweight as compared with younger children.

Table 5. Investigated Factors Related to Parental Perception

	West	Etelson	Myers	Adams	Eckstein	Goodell	Baugheum	Hackie	Killion	Jain	Maynard	Moore	Reifsneider
Child's Age	■				■						■		
Child's gender											■		
Child's BMI		■		■									
Parent BMI	■										■		
Parent Educational Level							■						
Race/ethnicity	■												

Although they did not specify exactly what age, Maynard et al. (2003) concluded that younger overweight children were more likely to be classified as 'about the right weight'. Another study, West et al. (2008) assessed parents of children aged 2 to 19 and found that parents of younger children were more likely to underestimate the weight status of their child than were the parents of adolescents.

Child's Gender

Seven studies examined child's gender as a factor in perception of child weight status. Of the seven, only Maynard et al's (2003) study found child's gender was a significant factor. The authors found that when boys at risk for overweight were considered, 14.0% of mothers perceived their son to be "overweight" and 84.7% perceived their son as "about the right weight." In contrast, 29.0% of mothers considered their at risk daughter to be "overweight," whereas 70.4% of these mothers perceived their daughter to be "about the right weight." (p. 1227).

Child's BMI

Seven studies examined child's BMI as a factor in perception of child weight status. Of Etelson et al's (2003) sample, the parents of obese children (23% of the sample) had similar levels of concern about the health risks of being overweight and similar knowledge of healthy eating as did parents of normal weight children. Etelson et al's (2003) study also found that the more the child weighed, the less likely parental assessment was to be accurate. Indeed, all of the parents whose children were in the highest percentiles inaccurately assessed their child's weight. In Adams et al. (2005)

study, factors that were predictive of child weight status recognition included child BMI above the 99th percentile.

Parent's BMI

Four studies examined parental BMI as a factor in perception of child weight status. West et al. (2008) study found that overweight parents were no more likely to underestimate the weight of their overweight child than were normal weight parents. However, Maynard et al's (2003) study found that overweight children with mothers who had lower BMI's were more likely to report them as overweight. Based on the findings from these two studies, it appears that mothers with lower BMI may be more perceptive in terms of accurately identifying child weight status than mothers who are overweight.

Education Level

Six studies assessed educational level as a factor. Although five of the studies found that education level was not a significant factor in parental recognition of child weight status, one study found otherwise. Baughcum et al. (2000) found that more mothers with lower educational levels failed to perceive their children as overweight compared to mothers who completed high school or some college education (30% vs. 17%). According to the authors, this factor remained strong even after adjusting for socioeconomic levels.

Race/ethnicity

The majority of studies included participants from diverse backgrounds. However, only one study (West et al., 2008) found race to be a significant factor in

predicting accuracy of parental perception of CHO. West et al's (2008) study found that African American parents were more than twice as likely to underestimate weight in their children. Several studies focused on specific racial/ethnic groups. For example, two studies (Reifsnider et al., 2008; Myers & Vargas, 2000) were focused on Hispanic population, specifically Mexican-Americans. One study (Moore et al., 2008) was focused on African Americans and one study (Adams et al., 2005) was focused on Native Americans. Myers & Vargas (2000) study, utilized mostly Hispanic participants (95%) posited that reasons for the lack of accuracy in parental perceptions of child weight status may have been related to cultural beliefs about body size within the studied population.

Father Involvement in Parental Studies

Although the literature search for paternal-focused articles did not yield any results, it is logical to assume that fathers would be included in the parental studies. In order to assess the degree to which fathers were involved in each study, we began by conducting a word search on parental-focused articles, using MS Word 'find' feature, looking for the following words: father, paternal, dad, man, men, male, husband. We also searched each article for words relating to mothers (specifically; mother, mom, maternal, women, female - only if pertaining to mother) and performed a search to see how many times the word 'parent' was used. In each case, the entire article was searched, except for title, acknowledgements and references. Results of the word search can be viewed in the Table 6, below. These results were checked by an additional reviewer and agreement among the reviewers was 100%. From the table, it is evident

that while each author used the word “mother” at least once, some articles never mentioned fathers at all.

Table 6. Results of Comparative Word Search for Words Pertaining to Father

Article	# Paternal words used	# Maternal words used	Usage of the word parent, parents or parental
Adams et al., 2005	Father – 8	Mother - 17 Grandmother - 9	Parent - 29 Caregiver - 56
Etelson et al., 2003	0	Mother - 1	Parent - 98
Myers & Vargas, 2000	0	Mother - 1	Parent - 100
West et al., 2008	0	Mother - 15 Maternal - 1 Female - 1	Parent - 169
Eckstein et al., 2006	Father – 1	Mother - 8	Parent - 130 Grandparent - 7
Goodell et al., 2008	Men – 1	Mother - 19 Grandmother - 1	Parent - 84

In order to further assess the extent to which fathers were involved in the parental studies, I created a “father involvement scale”. Fathers’ involvement was rated 0-3, with 0 indicating that there was no father involvement, 1 indicating that fathers were included in data collection only, 2 indicating that fathers were included in data collection and results but not in major findings (e.g., father education level included, but perception not ascertained) and 3 indicating that fathers’ data was collected, analyzed and relevant findings were reported and/or discussed. Two researchers reviewed each article carefully

for any mention of fathers in any aspect of the article. Agreement among the researchers was 100%. Table 7, below, gives more detail as to how fathers were involved in the studies.

Of the five parental perception studies, all but one (Myers & Vargas, 2000) included fathers. This study was the only one to receive a “father involvement score” of zero. Although the title of this study included the word ‘parental’, there was no mention of fathers in this study. Although four of the remaining studies included fathers; only one of (Adams et al., 2005) reported results pertaining to fathers.

Adams et al. (2005) found that fathers did not identify weight problems in their children or recognize an overweight child. Furthermore, among fathers who responded to the questions about child weight, all were either “not concerned” or only “a little concerned” about risk factors associated with being overweight. This was even more disturbing because Adams et al. (2005) study found that all but 1 of the 23 fathers responding (96.0%) were either overweight or obese. Whereas these findings are similar to maternal findings, based on Adams et al. (2005) report, fathers may be even more inaccurate in their perception and less willing to acknowledge CHO as a problem. These inaccurate perceptions from fathers are not a small issue since, as Adams et al. (2005) found in her study, “[fathers] tended to be responsible for family recreation and activity levels” (p. 151). Adams et al. (2005) study clearly illuminates the need for further studies that focus on fathers’ perception of child weight status.

Table 7. Depiction of Paternal Involvement in Parental Studies

Parental Study Identifier	Overall Study Results	N or percent of fathers in study	Results specifically pertaining to fathers	Discussion pertaining to father	Father Involvement Score
West	Most (60%) parents of overweight children underestimated weight at baseline	study reported that 80% of respondents were female in baseline and at follow-up study	No results pertaining to father were reported	No mention of fathers in the discussion	score=1
Myers	35.5% of parents of obese children did not perceive that their child was obese.	No mention of fathers in the study	No results pertaining to father were reported	No mention of fathers in the discussion	Score = 0
Adams	Caregivers recognized only 15.1% of overweight children.	74.1% were filled out by mothers, 9.7% by grandmothers, 8.6% by fathers, and 7.6% by other guardians. Caregiver type was not identified in one-quarter of the cases	Fathers did not identify weight problems in their children. None of the fathers recognized an overweight child. Furthermore, of the fathers who responded to the question, all were either "not concerned" or only "a little concerned" about risk of overweight. All but 1 of the 23 fathers responding (96.0%) were themselves either overweight or obese.	"Finally, community based researchers felt that fathers may be a significant target for intervention because they did not recognize the problem and tended to be responsible for family recreation and activity levels."	Score=3
Eckstein	Few parents (36%) identified their overweight or AROW child as "overweight" or "a little overweight" using words, but more (70%) selected a middle or heavier sketch.	Study reported that 94.5% of respondents were mothers 87% mothers, 11% fathers, 2% other relationship.	No results pertaining to father were reported	No mention of fathers in the discussion	Score = 1
Goodell	Parents did not perceive overweight as a problem with their children.	Study reported that forty-seven participants were women, 6 were men, and gender information for the rest was missing from the questionnaires	None reported - no mention	No mention of fathers in the discussion	Score =1

Other Methodological Concerns

Another focus of the literature review was to try to identify the extent to which theory was utilized in the existing studies. A tool was developed to assist with this assessment. The tool, which was used to search for theoretical frameworks and theoretical constructs, included a rating scale of a through d. The rating scale was as follows: a) indicated that a theory was named, but not utilized b) indicated that a theory was named and partially utilized or utilized inaccurately c) indicated that no theory was named, but easily identifiable constructs were used and d) indicated that no theory was named and no evidence of theoretical constructs were used. Two researchers reviewed each article for evidence of theory or theoretical constructs. In accordance with the tool, a rating was assigned to each article. Agreement among the reviewers was 90%. A third reviewer was employed to read the one article that was in question, in order to establish a tie breaker. Based on the tie breaker, the article was assigned a rating.

As detailed in Tables 3 and 4, none of the studies were grounded in theory. However, West et al's (2008) study used the 'knowledge' construct to examine whether tailored information, including child's actual BMI, would improve parent's accuracy in determining child weight status. Although West et al. (2008) reported that a greater proportion of parents accurately identified child weight status compared to the baseline year, the improvement was not statistically significance ($p < 0.09$). Adams et al. (2005), the only other study that included obvious theoretical constructs, used the construct of perceived risk in examining whether caregivers awareness of risks associated with CHO

would be predictive of accurate identification of child weight status. However, the authors reported no significant finding with regards to this construct.

Moore et al's (2008) study used what the authors termed "The Health Belief Survey" in order to assess parental accuracy in identifying child weight status. This study was conducted as a secondary data analysis of data collected using a survey that was designed by the authors. The survey included constructs of the Health Belief Model (Rosenstock, Strecher, & Becker, 1988), specifically, *perceived susceptibility and perceived severity*. The original survey was used to look at women's perception of their own risks of comorbidities related to excess weight. However, in the study included in this review, the authors did not use data that examined these constructs. The reviewed study, did however, examine knowledge in terms of a physician diagnosis, as a factor in parental accuracy in identifying child weight status. Nonetheless, results relating to physician's informing parents of their children's weight status showed that knowledge of child weight was not a significant factor in predicting accurate parent perception. In light of these findings, it is obvious that there is a need for future studies to focus on developing theory or using existing theories to help explain how parents are conceptualizing overweight and obesity.

Strengths and Limitations and Future Implications

The primary purpose of this integrative literature review was to explore and describe the research literature focused on parental perceptions of their child's weight status. Specifically, the review was focused on examining studies that focused on parental perceptions and accuracy in identifying CHO and CHO risk in their children.

This integrative review critically examined the literature on parental perception of child weight status, with a main emphasis on identification of factors specific to parental (specifically paternal) perception. This review offers a comprehensive analysis of factors examined in current parental perception studies and highlights the gaps in the knowledge base surrounding paternal perception of child weight status. Despite this study's usefulness, the review has some limitations. First, there is a possibility of articles not retrieved due to the search strategies employed. During the identification and screening process of potential articles, some may have been overlooked. Second, this integrative review focused on studies conducted in the United States. A comparative analysis of studies conducted in other countries might lead to some additional findings. Despite the potential limitations of this review, it provides researchers and health professionals with guidance and direction for future research, interventions, and inclusion of fathers in intervention strategies.

CHAPTER III

METHODS

Qualitative Paradigm and Paradigmatic Assumptions

A paradigm or worldview is “a basic set of beliefs that guide action” (Guba, 1990, p. 17). As stated previously, this research is a qualitative study and thus employs the qualitative paradigm and related assumptions. The qualitative paradigm is based on interpretivism (Altheide & Johnson, 1994; Kuzel & Like, 1991) and constructivism (Guba & Lincoln, 1994). Distinct ontological, epistemological, axiological and methodological assumptions shape and serve as a guide for conducting qualitative research. In terms of methodology, qualitative procedures are “inductive, emerging and shaped by the researcher’s experience in collecting and analyzing the data” (Creswell, Hanson, Clark & Morales, 2007, p. 19). Additional attention to methodology can be found below under ‘research methodology’.

From an ontological standpoint, this paradigm assumes that there are multiple realities (or multiple truths) based on one’s construction of reality. Reality is socially constructed (Berger & Luckmann, 1967) and so is constantly changing. Thus, when researchers conduct qualitative research, they are embracing the idea of multiple realities (Creswell et al., 2007). Ontological questions include: *What is the nature of reality? Is there a way that things ‘really work’? Are there laws that explain the relationships between things? Is there a ‘Truth’ that can be known? Is there a ‘reality out there’ that good research can discover?* (Denzin & Lincoln, 1994).

From an epistemological standpoint, qualitative researchers attempt to get as close as possible to the participants being studied. For example, in my current research, I have spent considerable time observing fathers in the community, as well as finding and speaking with key informants. This has helped to build the community's trust in me and provide context for what the participants are saying, as I have become familiar with where they live and work. In this way, I have made strides in what is referred to as minimizing the 'distance' or 'objective separateness' between myself and the research (Guba & Lincoln, 1998, p. 94). This practice has also increased my empathetic understanding of their day-to-day experiences and my awareness of the multiple meanings given to the events that occur in their lives.

All researchers bring their own values to a study. Axiology is concerned with how those values are made explicit. In a qualitative study, researchers admit that they bring their own values to the study, and they report on their values and biases as part of the study. This process is referred to as 'positioning yourself' in the study (Denzin & Lincoln, 1994). The *researcher's perspective* section of this dissertation is an example of this strategy.

The rhetoric of qualitative research involves writing in a literary, informal style using the personal voice, including qualitative terms and limited definitions (Creswell et al., 2007). The narratives that describe the research are written in a descriptive format, using the fathers' voice in order to convey their perceptions and how they make sense of the phenomena through their eyes. The objective is to allow the participant's voice to come through in describing their perceptions of the phenomena.

Research Design and Rationale

The research design for this phase of the study was an exploratory inquiry using a qualitative (naturalistic) approach. According to Denzin & Lincoln (2005, p. 2):

Qualitative research is multi-method in focus, involving an interpretive, naturalistic approach to its subject matter. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them.

Qualitative research involves the studied use and collection of a variety of empirical materials - in-depth interviews, personal experience, introspective, life story, interview, observational, historical, interactional and visual texts – that describe routine and problematic moments and meanings in individuals' lives.

Qualitative research refers to languaged versus numbered data (Polkinghorne, 2005) in which the purpose is to “build a complex, holistic picture” (Creswell, 1998, p. 15) and to describe and clarify “human experience as it appears in people’s lives” (Polkinghorne, 2005, p. 137). There is an effort to understand, appreciate, and portray the processes and means that people use to give meaning to their own and other’s behavior (Patton, 1984). In qualitative research, knowledge is not passively observed, but actively constructed and evolves from an exploration of people’s internal constructions (Heppner, Kivlighan, & Wampold, 1999). According to Creswell et al. (2007 p18), if a concept or phenomena needs to be understood because little research has been done on it, then it merits a

qualitative research approach. Qualitative research is exploratory and is useful when the researcher does not know the important variables to examine. Through examining the social context of fathers—how they view childhood obesity, their perception of their role in treatment and prevention, their attitudes and knowledge of the causes and preventative measures associated with childhood overweight and obesity—researchers can comprehend and evaluate father’s understanding of childhood overweight and obesity and related behaviors of childhood nutrition and physical activity.

Research Methodology

More specifically, this phase of the dissertation study employed qualitative research in the form of in-depth interviews. The use of interviews and observations are commonplace in qualitative research (Denzin & Lincoln, 2005; Fontana & Frey, 1994). The interaction between researcher and participant through the interview is, “the establishment of human-to-human relation with the respondent and the desire to *understand* rather than to *explain*” (Fontana & Frey, 1994, p. 366). When people talk to each other, they interact, get to know each other and understand each other’s experiences, feelings, expectations, and the world they live in (Kvale, 1996). The merit of an unstructured interview lies in its conversational nature, which allows the interviewer to be highly responsive to individual differences and situational changes (Patton, 2002). The words and stories of the interviewees can give a picture of how they make sense of a phenomenon. In this case, the participants have varied experiences and attitudes towards CHO, and I sought to gain understanding through detailed depictions of their experiences.

Interviews with the participants were open-ended and semi-structured. In the open-ended, semi-structured interview, the interviewer asked predefined questions, while inviting the interviewee to tell stories, illustrating his lived experience. The lived experience and insights of the interviewees were released through the interview, and the interviewer tried to gain access to the world of the subject and his perspective (Kvale, 1996; Rubin & Rubin, 1995). As Stake (1995) points out, qualitative researchers, "...are trying to remain open to the nuances of increasing complexity" (p. 21) thus affording the opportunity to optimize the concept of "progressive focusing" (Huberman & Miles, 1983; Stake, 1994). As data and themes emerged throughout the course of the study, the "organizing concepts change somewhat as the study moves along" (Stake, 1995, p. 133). Merriam (1998) notes that highly structured interviews do not afford a true participant perspective, they simply, "get reactions to the *investigator's* preconceived notions of the world" (p. 74).

The in-depth interviews were written in narrative form and are primarily concerned with including thick description to providing the reader insight and understanding of the participant's unique situation. Thick description refers to the detailed account of field experiences in which the researcher makes explicit the patterns of cultural and social relationships and puts them in context (Holloway, 1997). The outcome of a rich narrative text describing the experience of African American fathers with CHO is dependent upon organized, flexible, and careful data collection.

Participants and Site

Sampling and Recruitment

A purposive sampling was used to recruit 4 African American fathers in Harris and Brazos counties, Texas. According to Merriam (1998:61) purposive sampling emphasizes a criterion based selection of information rich cases from which a researcher can discover, understand and gain more insight on issues crucial for the study. Herbert Rubin and Irene Rubin (1995) suggest three guidelines for selecting informants when designing any purposive sampling strategy. Informants should be:

- knowledgeable about the cultural arena or situation or experience being studied.
- willing to talk
- Represent[ative of] the range of points of view (p. 66)

Following these guidelines, the inclusionary criteria for this phase of the study was English-speaking, African American fathers in Harris and Brazos counties, Texas, over the age of 18 years with a child between the ages of 6 and 12, who maintained some form of consistent communication with their child (e.g., daily interactions, weekend visits, phone conversations) and were willing to share their experiences. An effort was made to recruit African American fathers from diverse backgrounds (e.g., different occupations, socio-economic positions and age groups) in order to attempt to capture a range in points of view. Individuals were excluded if they were non-English speakers, did not live in Harris and Brazos counties, Texas, had no children or only had children who were either younger than 5 years of age or over the

age of 12 at the time of the study, but none between the ages of 6-12 and those who did not have any form of consistent contact with their child.

Snowball sampling (a type of purposive sampling) was utilized, as needed to recruit participants during the study. Using this method, I began by identifying participants who met the criteria for inclusion in the study. I then asked them to recommend others who they knew who also met the criteria. According to Schutt (2004), snowball sampling is especially useful when you are trying to reach populations that are inaccessible or hard to find.

Traditional recruitment approaches (e.g., flyers, direct approach) were utilized to recruit participants. Participants were recruited from local community establishments (e.g., churches, barber shops, grocery stores) to participate in the interviews. Participants were given a \$25.00 Wal-mart gift card as an incentive to compensate for their participation. Participants were evaluated based on selection criteria (detailed above) and those who were eligible were provided with study information sheets and asked to anticipate availability for an interview. Those who consented were contacted by phone for definitive scheduling.

Data Collection

Data Collection Instruments

Three types of instruments were used to collect data - human instrument, semi-structured open-ended questions and a demographic questionnaire.

The emphasis of this (qualitative) methodology is on “using the self as an instrument of inquiry” (McCracken, 1988, p. 32). Central to conducting research and

more specifically qualitative research is the researcher as research instrument (Denzin & Lincoln, 2000: 368; Marshall & Rossman, 1995: 59-65). As such, I served as a key person in obtaining data from the fathers and conducted each interview as the Principal Investigator.

Data Collection Procedures

Prior to data collection, this phase of the study was approved by the Institutional Review Board at Texas A&M University, College Station, Texas. Data collection involved interviews, which were scheduled based on participants' availability. Interview questions included open-ended, semi-structured queries to allow free discussions and interactions. At the onset of each interview, participants will undergo the informed consent protocol to ensure the protection of their rights. Prior to the interview, once written consent to participate in the study is obtained, participants were asked to complete a demographic questionnaire. The questionnaire (See Appendix B) was developed in order to collect information on the interviewees' demographic characteristics. Information collected using the demographic questionnaire was also used to examine anthropometric measures relevant to the study. The purpose and intentions of the demographic questionnaire were explained to each participant and any questions were answered.

Participant names and identifying information, such as names of workplaces, schools and family members was changed to protect their confidentiality. All records of the study (e.g., recruiting procedures, interviews, field notes, transcripts) were secured in a locked cabinet.

The interviews were conducted at local venues, including coffee shops, sports bars and lunch cafes. Each interview lasted approximately one hour. All interviews were audio-taped, using a digital recording device. Hand written notes were also taken for all interviews to supplement the audio-recordings and aid me in capturing the salient points. At the conclusion of each interview, I read a brief summary of the main points to each father and asked him if the notes were accurate. Adjustments were made as needed. Before turning off the recorder, fathers were asked if they had any further information to add. In each case, the fathers added additional information. All interviews were transcribed by me, as well as a trained transcriptionist. Each interview was cross-checked between me and the transcriptionist for accuracy. Once the interviews were transcribed, additional member checking was attempted by contacting the fathers and asking them to read over the transcript for accuracy. Three of the four fathers consented to read over a copy and provide feedback. Only one provided feedback, which was that he was surprised at how long the typed transcript was in terms of pages. Once an attempt was made to solicit feedback from each participant, I proceeded with data analysis.

Four interviews were conducted and by the fourth interview, the fathers' data yielded no new information. This is the point that data saturation was reached. Data saturation refers to the point in data collection when additional interviews or units yield little new information pertinent to the topic of interest (Holsti, 1969; Lincoln & Guba, 1985; Schutt, 2004). In naturalistic inquiry, there is no set of standards for sample size (Holsti, 1969; Krippendorff, 1980). How large a sample size should be depends on the nature of the data and the types of questions being investigated (Holsti, 1969).

Data Analytical Plan

Qualitative research amasses huge amounts of raw data; therefore, it is essential to maintain the data in an organized and timely fashion (Denzin & Lincoln, 2005; Huberman & Miles, 1983; Merriam, 1998). Merriam, (1998), points out that “the right way to analyze data in a qualitative study is to do it *simultaneously* with data collection” (p. 162). Stake emphasizes, (1994) that data is continuously interpreted since qualitative research is inherently reflective, “in being ever reflective, the researcher is committed to pondering the impressions, deliberating recollections and records....data [is] sometimes precoded but continuously interpreted, on first sighting and again and again” (p. 242). More specifically, Huberman and Miles (1983), outline a detailed procedure for data gathering and analysis:

- coding (organizing and theming data)
- policing (detecting bias and preventing tangents)
- dictating field notes (as opposed to verbatim recordings)
- connoisseurship (researcher knowledge of issues and context of the site)
- progressive focusing and funneling (winnowing data and investigative technique as study progresses)
- interim site summaries (narrative reviews of research progress)
- memoing (formal noting and sharing of emerging issues), and,
- outlining (standardized writing formats)

Research analysis for this phase of the study followed this format, with the exception of substituting transcribed interviews and written field notes (handwritten) for the dictated

field notes. Additionally, summaries, memos, and outlines were combined in my reflective research journal. After reviewing all the data sources, the materials (interview transcripts and notes) were manually coded. The manual coding followed a procedure of organizing and theming data that involved coding texts (interviews) into units. The interviews were categorically coded as the study progressed and emerging themes were continuously examined for relevancy and to detect bias. As each interview was coded, emergent themes were further developed and subthemes were identified.

Verification

The aim of trustworthiness in a qualitative inquiry is to support the argument that the inquiry's findings are "worth paying attention to" (Lincoln & Guba, 1985, p. 290). In qualitative research, there are four areas in which trustworthiness needs to be addressed: credibility, transferability, dependability, and confirmability. Credibility is an evaluation of whether or not the research findings represent a "credible" conceptual interpretation of the data drawn from the participants' original data (Lincoln & Guba, 1985, p. 296). Transferability is the degree to which the findings of the inquiry are applicable or can be transferred beyond the existing project into other contexts. Dependability is an assessment of the quality of the integrated processes of data collection, data analysis, and theory generation. Confirmability is a measure of how well the inquiry's findings are supported by the data collected and are shaped by the respondents and not by researcher bias, motivation, or interest (Lincoln & Guba, 1985). To address trustworthiness, I employed several of the techniques posited by Lincoln and Guba (1985). Methods used to address trustworthiness are described in Table 8 below.

Table 8. Trustworthiness Criteria

Trustworthiness Criteria Addressed	Method	Ways Employed in Research
Credibility	<p><u>Prolonged Engagement</u> Prolonged engagement involved spending time learning and understanding the fathers unique cultural and social settings. This involved spending adequate time observing, speaking with a range of people, and developing relationships and rapport with members of the culture (Wallendorf 1987). Development of rapport and trust facilitates understanding and co-construction of meaning between researcher and members of a setting.</p>	<p>In order to achieve this, I spent over a year in the community and came to appreciate and understand the context that the research was conducted in. I attended various churches, visited and observed schools and recreation facilities and visited the African American museum within the community. By being in the community, I established rapport and was better able to detect and account for possible distortions in the data. Further, I identified key informants who served to assist with the research in terms of development of questions and recruiting of participants.</p>
Credibility and Confirmability	<p><u>Reflexivity</u> A major threat that has been identified within the context of qualitative research is the researcher's subjective influence on data gathering and analyzing processes (Maxwell, 1996; Miles & Huberman, 1994; Morrow, 2005). To limit or control for this threat, a common strategy used involves self-reflexivity (Rennie, 2004). "Reflexivity requires an awareness of the researcher's contribution to the construction of meanings throughout the research process, and an acknowledgment of the impossibility of remaining 'outside of' one's subject matter while conducting research. Reflexivity then, urges us "to explore the ways in which a researcher's involvement with a particular study influences, acts upon and informs such research." (Nightingale & Cromby, 1999, p. 228). "A researcher's background and position will affect what they choose to investigate, the angle of investigation, the methods judged most adequate for this purpose, the findings considered most appropriate, and the framing and communication of conclusions" (Malterud, 2001, p. 483-484).</p>	<p>In order to employ reflexivity, I kept a reflexive journal. In this journal, I made regular entries during the research process. In these entries, I recorded methodological decisions and the reasons for them, the logistics of the study, and reflected upon what was happening in terms of my own values and interests.</p>

Table 8. Continued

Trustworthiness Criteria Addressed	Method	Ways Employed in Research
Credibility and confirmability	<p><u>Triangulation</u> Based on the work of Erzerberger & Prein (1997), the primary purposes of triangulation are to explore convergence, complementarity, and dissonance. Each of these, in turn, contributes to the overall goal of triangulation, that is, to enhance the validity of the research by increasing the likelihood that the findings and interpretations will be found credible and dependable (Lincoln & Guba, 1985).</p>	Methodological triangulation was employed by utilizing more than one research method, namely, key informant interviews and post-interview discussions. Investigator triangulation was also conducted by involving two or more researchers in the analysis.
Credibility	<p><u>Member Checks</u> Member checks, also known as informant feedback or respondent validation, is a technique used by researchers to help improve the accuracy, credibility, validity, and transferability (also known as applicability, external validity, or fittingness) of a study.</p>	Member checks were conducted with each of the fathers in order to encourage the participants to review and edit the transcripts as they saw fit. Additionally, I attempted to share preliminary categories with each of the participants and was successful in engaging two of the participants in feedback oriented discussions regarding the coding of their data.
Credibility	<p><u>Peer Debriefing</u> Peer debriefing “is a process of exposing oneself to a disinterested peer in a manner paralleling an analytical sessions and for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the inquirer's mind” (Lincoln & Guba, 1985, p. 308) Purpose of debriefing</p> <ul style="list-style-type: none"> ·through analytical probing a debriefer can help uncover taken for granted biases, perspectives and assumptions on the researcher's part ·through this process the researcher can become aware of his/her posture toward data and analysis ·this is an opportunity to test and defend emergent hypotheses and see if they seem reasonable and plausible to a disinterested debriefer ·provide the researcher with an opportunity for catharsis 	Peer debriefing was a continual part of the research process. Several fellow students, as well as researchers in health education, social work, psychology and a healthcare practitioner were provided with drafts of each chapter as they were completed. Discussions about the findings also ensued after each interview. Feedback from the peers was invaluable as it was used to help me recognize salient points in the research findings, identify and bracket for researcher bias and refine the research questions as the process evolved.
Transferability	<p><u>Thick Description</u> Thick description is described by Lincoln and Guba (1985) as a way of achieving a type of external validity. By describing a</p>	In order to provide a detailed thick description, I kept a paper trail and am prepared to make all data analysis documents used to generate the answer to

Table 8. Continued

	phenomenon in sufficient detail one can begin to evaluate the extent to which the conclusions drawn are transferable to other times, settings, situations, and people. Thick description refers to the detailed account of field experiences in which the researcher makes explicit the patterns of cultural and social relationships and puts them in context (Holloway, 1997).	the research question available upon request. This access to the inquiry's "paper trail" gives other researchers the ability to transfer the conclusions of this inquiry to other in-depth interviews, or to repeat, as closely as possible the procedures of this project.
Trustworthiness Criteria Addressed	Method	Ways Employed in Research
Dependability and confirmability	<p><u>Audit Trail</u> An Audit trail is a transparent description of the research steps taken from the start of a research project to the development and reporting of findings. These are records that are kept regarding what was done in an investigation. In order to develop a rigorous audit trail, Halpern's (1983) categories for reporting information when developing an audit trail will be utilized as follows:</p> <ul style="list-style-type: none"> · Raw data - including all raw data, written field notes, unobtrusive measures (documents) · Data reduction and analysis products - including summaries such as condensed notes, unitized information and quantitative summaries and theoretical notes · Data reconstruction and synthesis products - including structure of categories (themes, definitions, and relationships), findings and conclusions and a final report including connections to existing literatures and an integration of concepts, relationships, and interpretations · Process notes - including methodological notes (procedures, designs, strategies, rationales), trustworthiness notes (relating to credibility, dependability and confirmability) and audit trail notes · Materials relating to intentions and dispositions - including inquiry proposal and expectations (predictions and intentions) · Instrument development information - including pilot forms, preliminary schedules, observation formats 	To address the issues of dependability and confirmability, I solicited an independent audit of the research methods by a competent peer (Lincoln & Guba, 1985; Patton, 1990). After completion of the study, the auditor thoroughly examined the audit trail consisting of the raw data, data reduction and analysis products, data reconstruction and synthesis products, process notes, materials relating to intentions and dispositions and the instrument development information. Results will be made available upon request.

CHAPTER IV

FINDINGS

A man's worth is measured by how he parents his children. What he gives them, what he keeps away from them, the lessons he teaches and the lessons he allows them to learn on their own. ~Lisa Rogers

Chapter Overview

This study investigated four African-American father's perceptions of child weight status. The fathers volunteered rich and detailed stories about their past and present views on child weight categories, acceptable weight for children and practices to maintain healthy lifestyles for their children, allowing me to gain an understanding of the complexity of their current practices with regard to CHO. This chapter contains an overview of the research analysis, background information of the research participants, and narratives providing thick description of the participant's perception of CHO. The majority of this chapter is dedicated to exploring and expounding upon the narratives that comprised the emergent themes. Discussion of the themes, implications and recommendations will follow in Chapter V.

Positivist researchers tend to ignore the fact that people think and act, that people are active makers of their physical and social reality (Orlikowski & Baroudi, 1991). According to Orlikowski & Baroudi (1991), "*Positivist studies are premised on the existence of a priori fixed relationships within phenomena. Such studies serve primarily to test theory, in an attempt to increase predictive understanding of phenomena*" (p. 5).

In contrast, interpretive research does not predefine dependent and independent variables, but focuses on the complexity of human sense making as the situation emerges (Kaplan & Maxwell, 1994); it attempts to understand phenomena through the meanings that people assign to them (Boland, 1991; Orlikowski & Baroudi, 1991). Interpretive methods of research in this study are aimed at producing an understanding of the context of African American fathers as health liaisons to their children with regards to child weight status, whereby fathers influence and are influenced by the context. In keeping with the epistemological view of the Interpretivist paradigm, the researcher posits that how one understands reality can only be represented symbolically, particularly through the use of language (Tillman, 1990). To this end, my intention is to present rich, thick description, including the participant's own words via quotes, in order to allow the reader to see what they can see in the data. In this way, the intention is to "share the wealth" and to invite others to continue the inquiry and conversation (Chenail, 1994). While Chapter V will focus on discussion and interpretation, this chapter focuses on presenting the narratives obtained during the open ended interviews.

Overview of the Research Process

Data collection involved gathering demographic information via questionnaires and conducting semi-structured, open ended individual interviews with each of the four participants based on an interview outline. The interviews were approximately one hour long, with some follow up conversations and emails for clarification. Saturation was reached overall in the study within the four interviews. Participants in the study were all fathers with at least one child between the ages of 6 and 12, and the sampling procedures

were purposeful. Trustworthiness of the data was accomplished through thick, rich descriptions, member checks, reflexive journaling and peer review. During the interviews, I took notes, in addition to recording the entire interview. This allowed me to begin analyzing the data simultaneously with the data collection. The interviews were transcribed and analyzed by me and by a trained transcriptionist. Four rounds of data analysis were conducted in order to reduce the data to salient themes. Each round consisted of two researchers reviewing and categorizing the data following the coding procedures of Huberman and Miles (1983), including: coding, progressive focusing and funneling. In addition, I kept a reflexive journal throughout the process to detect bias. Through this process, major themes were identified. The interpretations of these themes were a result of inductive data analysis and data reduction.

Major Categories and Emergent Themes

The data analysis revealed four strong emergent themes from the open ended interviews. The themes are organized under the apposite research question, in order to facilitate understanding of the context and background of the supporting narratives. The research questions for this phase of the study were:

RQ1 - What are African American father's perceptions of CHO?

RQ2 - How do African American fathers perceive CHO in relation to their own child's weight status?

- a. Do medical definitions of CHO coincide with fathers' perception and/or definitions of child weight status?

- b. What factors do fathers perceive as contributing to CHO (in their own children or in others) within the home environment?

Emerging themes from the data under each research question include:

1) Contributors to child overweight, with themes including: lack of parental responsibility, genetics, lack of resources needed to eat healthy and impact of competitive sports - with subthemes including a) sports as part of a healthy lifestyle and b) sports as reason for deviation from a healthy lifestyle;

2) Perceptions of medical definitions of overweight (particularly BMI), with themes including: inaccurate based on perception of child health status, inaccurate based on culture/race, inaccurate based on body structure;

3) Nomenclature used to describe child weight with themes including: contextualization of terms, synonyms for terms and definitions of terms.

Table 9, below, details the themes and subthemes.

Table 9. Research Questions and Resulting Themes

Research Questions (RQ)	Themes
RQ1: What factors do fathers perceive as contributing to CHO (in their children or in others) within the home environment?	Lack of parental responsibility Genetics Lack of resources needed to eat healthy Impact of Competitive Sports Subtheme a: Sports as part of a healthy lifestyle Subtheme b: Sports as Reason for deviation from a healthy lifestyle
RQ2: What are the fathers' perceptions of medical definitions of overweight (particularly BMI)?	Inaccurate based on perception of child health status. Inaccurate based on cultural or racial considerations Inaccurate based on body structure
RQ3: What nomenclature is used by fathers to describe child weight (medical and/or nonmedical)?	Contextualization of terms Synonymous terms Definitions and context for medical and nonmedical terms for overweight

Participant's Backgrounds

Four fathers participated in the study. The fathers' parenting structures included single custodial parent, single residential parent and married parent. In addition to diverse parenting structures, the fathers also represented diverse occupations: Brad was a store manager and a part-time coach; David was a financial systems analyst; Phil owned and managed a junior football league and Mitch worked as a part-time sales professional for the local (Houston) professional basketball organization. With the exception of Brad, (the only single, custodial father), income did not seem to be a factor in their ability to provide healthy nutritional or physical activity choices for their children.

Based on each father's report of child height and weight, calculated BMI reveals that the children had various weight statuses; ranging from healthy weight to overweight. This variation in child's weight status did not appear to affect the fathers' perceptions of

weight in children, as they all expressed similar perceptions, regardless of their child's weight. This is consistent with West et al.'s (2008) study, in which the authors found that the responses of overweight parents were not significantly different from the responses of parents of normal weight.

The narratives are organized in order of the research questions, in order to facilitate a logical flow within and between interviews. In addition, each participant description includes details about family structure in order to illuminate the diverse/unique familial situations that influenced the fathers' perception of CHO and parental participation in child health strategies in general. Demographic questionnaires were used to obtain background information from the study participants. This information, along with information gleaned throughout the interviews was used to construct brief, specific biographies of each participant. The table below (Table 10) summarizes the relevant demographic information.

Table 10. Participant Information & Child Anthropometric Measures

Participant	Familial Status (as defined in Chapter I)	Child Gender	Child Age	Child Height	Child Weight	Child's BMI	Weight Status	BMI Percentile
David	Single, non-residential father	Male	14	5'7	190 lbs	29.8	Overweight.	98 th
		Male	11	4'11	180 lbs	36.4	Overweight.	99 th
Brad	Single, Custodial father	Male	15	5'8	130 lbs	19.8	Healthy weight	49 th
		Female	13	5'3	105 lbs	18.6	Healthy weight	48 th
		Female	11	5'2	150 lbs	27.4	Overweight	98 th
Mitch	Single, non residential father	Female	12	5'2	102 lbs	18.7	Healthy weight.	58 th
Phil	Married, residential father	Male	17	5'11	162 lbs	22.6	Healthy weight.	67 th
		Male	15	5'11	150 lbs	20.9	Healthy weight	64 th
		Female	11	5'0	95 lbs	18.6	Healthy weight	65 th
		Male	10	5'1	104 lbs	19.7	Overweight	86 th

Brad

Brad was a tall man, about 6'1, who I perceived as overweight but not obese.

We met at a local sports bar. He pulled up in the parking lot as I was pulling up and we shook hands and proceeded inside. Brad was very polite and, after getting a table, inquired as to whether I wanted anything to eat or drink - Brad ordered water. He appeared to be relaxed and was dressed in a business casual outfit which led me to believe that he might have been getting off of work and coming directly to the sports bar for the 5:30 p.m. interview. The sports bar was suggested by Brad, after a brief conversation during which he agreed to participate in the study, because it was

convenient to both of our homes and was an open place to meet. The demographic form revealed that he was 42, divorced and a father of three. Brad worked full time as a store manager and volunteered to coach little league teams during football season. He had two daughters and one son who he was raising as a single, custodial parent. In his opinion, single mothers had a much easier time raising their children than single fathers because everyone offered them help. On being a custodial, single parent and his parental responsibilities, Brad said

No one helps me. I have to get them up, take them to school, feed them, clothe them, do homework, take them to sports and whatever else and everyone thinks that I should just be able to do it without help - because I'm a man. All this, and I work and coach football so that I can pay for their stuff that they need. I'm not complaining", he added, "But it's hard. I would love to do an interview on that! Talk to me about how hard it is being a single father!

When asked if he thought this was the plight of most single fathers, he quickly replied an emphatic "yes." He had several friends who were single fathers and they were all going through the same thing. However, Brad had what I guessed was a pretty unique family structure. According to him, he had been married "*several times.*". His oldest son (15) and daughter (13) were from his first marriage. His youngest daughter (11) was from his last marriage. All of the children lived with him full-time. Although his oldest son and daughter had the same mother, they did not have the same father. Brad was only the father of the 13 year old, as his ex-wife already had one child prior to their marriage. After his first divorce, his stepson (he never used that term when describing him) wanted to live with him. He explains "*My, uh, 15 and 13yr old, they have the same mother, but he's my step son, you know, I just been raising him since he was eight months old and*

he's been with me ever since." Furthermore, during the interview, Brad revealed that his youngest daughter's mother was deceased.

Although Brad was the custodial parent and made the major decisions for his family, his narrative highlights the fact that children who spend time in households with differing parenting styles, pose different challenges in terms of nutrition and physical activity practices. Based on revelations during his interview, Brad appeared to be a caring parent who was trying to raise his kids (and a child that was not biologically his) to the best of his ability.

Of his three children, the 11 year old was the only one who was overweight. Brad never verbally expressed anything to differentiate how he treated his children, but his expression, when talking about his youngest daughter, was sometimes pained. When he spoke about her weight struggles, his voice and demeanor softened considerably. Brad recounted one very informative incident of how different parenting styles enforced poor nutrition habits in his youngest daughter.

...her first 5 years of her life, she lived with her mother and her grandparents and they were old school. They think that whatever you fix on your plate you eat - even if you are full, you finish your food. When I got her - after her mother passed away, I let her know 'Baby you don't have to- if you are full, you're full - you don't have eat all that food if you are not hungry... she still had food on her plate, she doesn't want to get down because they had her so drilled into 'finish all your food'. I started noticing it and I'm like 'Angel what's going on?' and she would be like - (shrugs his shoulders to demonstrate his daughter's response). I would be like 'Baby are you full?' She's like 'Yeah' and I said, 'Well, if you're done, you're done, sweetheart. I mean, don't worry about it'. You know? 'If you want, next time Daddy'll give you a smaller amount, but even with that, if you're full, you don't have to sit there and force yourself to eat the rest of the food. Put it up for later or throw it away'. You know? That's how they had her conditioned - to finish all your food.

When Brad was asked about his general perceptions of childhood overweight and obesity, he immediately reflected on parental responsibility. According to Brad,

I definitely think that that is something the parent needs to do. Uh... they need to be involved with their kids - get their kids more involved, get them out the house, get them off their play stations and video games. Even if it takes you getting out playing with them - they need to get in 30-60min a day – every day. That’s, something they [the parents] should be doing.

Brad stressed the importance of parents serving as role models for their children

...if parents are active, their kids are going to be active. They’re following the lead of the parents and you’ve got parents coming in from work and they are just laying around not doing anything. The kids are going to do the exact same thing. If you’re an active parent, you’re staying busy, and you’re aggressive, your kids are going to do that. So, they’re following the lead, they’re following by example.

David

David was six feet tall, relatively thin- with no visible body fat. We met at a local coffee shop and David was dressed in dark slacks and a white collared shirt. He seemed eager to begin the interview and sat on the edge of his chair during most of our conversation. David shared that he visited his children every other weekend and on select holidays. He also shared that he worked full time as a Financial Systems Manager and has volunteered to work with children through summer camps in his community. He was 44, divorced and had two sons 11 and 14, and one daughter 18. It was interesting to note that David was the only father who did not appear to be overweight. However, based on his own admission, he was also the only one who was not a former (or current) athlete, ate ‘junk food’ and did not try to model healthy behaviors. Both of his children were overweight and, of all the fathers, he appeared to be the least engaged in trying to prevent overweight in his children. David’s reasons for not engaging in weight

prevention strategies with his children (aside from decreased proximity, since they did not live in the same state) were based on his beliefs that they would “grow out of it” (being overweight), because he had grown out of it. In describing this process, David says, *“My oldest son, has already grown out of it, for the most part he’s still kind of heavy but I think some of that comes from his parents...”*

David repeated this assertion several times, in various ways and initially refused to divulge his children’s weight status on the demographic questionnaire that he filled out at the beginning of the interview. When I asked a direct question about his son’s weight status, he quickly interrupted me and said that he did not know their weight. However, earlier during the interview David mentioned that his youngest son weighed 180 pounds. At that earlier point, I had written down the child’s weight and after looking back through the interview notes, I pointed out to David that he had already divulged his son’s weight. Once I pointed this out, David seemed to magically remember what his youngest son’s weight was and went on to provide both of his sons’ weight and height. However, he immediately asserted that they were not overweight in his estimation – just ‘heavy’. David later admitted that the youngest one was overweight, but not ‘fat’. It was clear that he had not intended to divulge their weight and was very uncomfortable speaking of them in terms of their weight status. Based on their BMI, they are both above the 98th percentile in terms of their weight.

When asked about his role as a father, David explained his perception that traditional gender roles have changed over the years,

I’m divorced and I love my kids but ... as far as the father’s role, it’s kind of hard to draw a line between their [the mother and father’s] roles... At one time,

traditionally, you would say that the father was the 'bread winner' and he would go out and everything and the mother would take care of the home. She would be there to make sure the kids got what they needed. She'd cook and clean and all this other stuff where the dad was out there, you know, bread winner - he'd go out there and he'd take care of what was needed and then he's also the disciplinarian of the team. Well, nowadays because we've blurred that line out so much, you really don't see the father being the disciplinarian. Now it's more of a partnership type of thing...

To further explain their shared parental roles in light of his divorced status,

David added, *"You know, it comes down to - we both made them. We both have to raise them. Even though we're not together, it's not their fault that we're not together."*

As far as his parental responsibility with regards to his children's activities and nutrition, he believed that

... it's both party's decision -both of them. You both have to keep them active. You can't just have one keep them active and then the other [one not] - and you can't just point your finger at the other for not doing that. Ok? I mean, you can, but it's not fair to do so if the kids are with their mom all week and with me on the weekends, I can't point my finger at their mom and say "Hey, make these kids get up and do some stuff!" ...So we both have to make that decision. It's like, 'Ok, for the boys, they've got this program going on. Let's try to get them in it because they need to stay active'. You know, I may be the one paying for it [and] she may be the one able to drop them off.

Based on conversation with David, it appeared that he was not in control of his children's nutrition or exercise choices and felt that he had to respect their mother's choices and be supportive of her decisions with regards to their everyday lives.

When David was asked about his general perceptions of childhood overweight and obesity, he cited his experiences working with children in summer programs as the reason for his assertion that obesity has a differential effect on certain neighborhoods.

It's like only in certain neighborhoods, you see it more in certain places, than you see it in others. In some of the lower income neighborhoods, I'll see cases of obesity there, when working with kids in some of the after school

programs. I'll see more cases there than I'll see in some of the other, wealthier neighborhoods...

In his experience, living in a wealthier neighborhood is more of a determinant of child overweight than is parenting status. David expressed that once the parents are doing better financially, the children are more likely to be placed in organized sports programs. He reflects on their higher SES

Ok well we're making it. We're doing a little bit better. Our kid is in a soccer program or is in a football program or is playing basketball or out there in gymnastics or something like that. . it's kinda hard [to] put your finger on it but it does come down to where I've seen it. I'm not going to say 'at risk neighborhoods' but, in certain neighborhoods we do find more [overweight children]

David expressed his belief that parents should serve as role models. However with regards to his own ability to do this with his children, he says

Well, the thing is, I'm not there to show by example. I'm not there to lead by example so, that's [number] one, you know? And what probably may be a good thing is that I wouldn't be a good example (laughter from David). See, I'm a junk food junkie so it probably wouldn't help out any... (more laughter).

When probed further about his thoughts on not being a good example, he adds, “...*they know me... (laughter) I'm their daddy (more laughter). I try not to do [it] too much. I mean, they fuss at me more than anything now 'Daddy, you gotta eat this and you gotta eat that.' So, they know better. . .*”

David appears very knowledgeable about health and healthy choices but he does not express that he does anything to support his two overweight boys in terms of encouraging them to make healthy choices. He mentions (as his number two point) that he would like to be able to “*Give them support and motivation... support and positive reinforcement, on a regular basis and not just on the weekends and stuff...*” This assertion suggests that David's limited amount of time spent with his children, due to the

parenting arrangement, likely affects his parenting style and ability to influence his children.

Phil

Phil was 39 years old, 6'5" and stated during the interview that he weighed "290 pounds" which, by his own admission made him a "big guy." On the demographic questionnaire Phil, who was married with four children, selected self-employed and part time for his work status. During the interview, he revealed that he founded and manages a city-wide, little league football organization with over 15 teams. The majority of Phil's examples of CHO were derived from the children who he encounters while coaching a team within his league.

Phil has two daughters 10 and 11; and two sons 15 and 17. Although he is raising them with their mother, Phil takes on a lot of the care of the children. When asked about parenting roles, Phil revealed that he cooks at least four times a week and shares in other activities, such as the grocery shopping. Phil was perhaps the most health conscious of the four fathers and also appeared to be the most consistent in terms of practicing the healthy behaviors that he spoke about. For example, Phil mentioned that his family does not eat pork and eats very limited beef and admits that this was his choice due to his perceptions concerning the ill-effects of beef and pork on the body. Phil feels that he has more time to spend parenting than the average father,

I'm blessed. A lot of men can't be soccer dads or won't be a soccer dad, you know. I've got time to go to all my kids' events, whether it's some school-related [event] or whatever. Now my wife does have the flexibility, you know, - because she's the boss - to take off and do what she [wants to] do, but as far as taking them to practice, picking them up from practice, being at the games, I'm way [more] flexible.

When Phil was asked about his general perceptions of childhood overweight and obesity, he immediately reflected on parental responsibility. Phil believed that parents were not taking care of their kids properly. Phil commented, *“I blame the parent. When I see all this Jerry Springer and you’ve got a 3 year old weighing 100 pounds - that’s the parents fault. So that’s pretty much my take. It’s the parent’s fault.”*

When asked about parents as role models, Phil, who is diabetic, shares his desires to make sure his children take better care of themselves than he did,

...I lead by example. I tell them ‘the reason why I am making you eat this or eat healthy or just eat white meat, is because you don’t wanna end up like Daddy.’ I played ball and partied and drank and just ate whatever I wanted to and all that good stuff, because I was a football player, now look at me. They see me taking shots of my insulin and... so I show them. ‘If you don’t wanna take these shots, take these pills, and stuff - be a diabetic... and risk kidney failure or getting something cut off or amputated, if you don’t want that, you need to do what I [say].’

Mitch

At 40, Mitch was 6’4 and looked to be slightly overweight, but in good shape. He volunteered that he played basketball with a local league to stay in good physical condition. Mitch, who had studied accounting in college, was currently unemployed from his main job, due to layoffs. His second job, working in sales with a professional sports team, was providing him with what he described as ‘a little pocket change.’ Since the layoff, he had downsized and moved back in with his parents in order to save money.

Mitch, who had never been married, had two children - a son (20) who was away in college and a daughter (12) who lived with her mother but generally spent weekends and select holidays with him. Mitch complained that custody and visitation was

becoming an issue and spoke briefly of legal proceedings to remedy the situation. He expressed that he enjoyed spending time with his daughter, and commented that, although he loves her, he has made it a point to make her very aware that he is “her father, *not* her friend.” That strong statement might suggest that Mitch has an authoritarian parenting style, but this is not supported by his interview. Mitch talks about letting his daughter decide what they will eat when they eat out. However, he also talks about setting limits, with regards to her food choices, in order to help her maintain competitiveness during track season. This pattern of setting limits, while allowing children to make choices, is in line with authoritative parenting style. When asked about parenting roles, Mitch had this to say

As far as my daughter, she’s still a kid and she’s gonna eat some bad food here and there but for the most part she eats right. She’s gonna eat right, I mean, because that’s what she was brought up with. That’s how she was taught, you know, to take care of your body.

More than the other fathers, Mitch speaks frequently about teaching children good habits. Mitch feels that children will follow what they are taught by their parents, even when the parents are not around. When Mitch was asked about his general perceptions of childhood overweight and obesity, he immediately reflected on parental responsibility in terms of controlling children’s habits through teaching and enforcing proper nutrition and physical activity

The parents buy the food. The parents give them the money, you know, the parents give them the money. When they get to school they [the parents] can’t control...what the kids buy. But when you’re at home, then you eat more food at home then you are eating in school, so it falls back on the parent. If the parent has taught them how to handle themselves and eat right, you don’t have to worry about that when they are not at home... Your kids do what you let them do, or

they do what you tell them to do and if a parent doesn't keep them active or make them get active they're not gonna do it, you know they're gonna do what they're comfortable with and that's sit in the house and play games and eat and eat.

Mitch felt like it was important for parents to recognize that they serve as role models for their children. Of his personal role modeling, Mitch says “...*a part of my everyday life is just to stay active, basically doing some kind of working out. I mean, when I say working out, it's not even working out, just doing something active.*” Mitch also shares these thoughts,

...kids tend to emulate their parents. They tend to be like their parents...If you have parents that are sitting around, they're not going to do too much, you know, [kids are] very impressionable. Kids are just like their parents for the most part and if they see their parents sitting around, not doing anything they tend to be in the same pattern that their parents are. But if you have an active-parent family, where the parents are active, 9 times out of 10 they're going to be doing the same thing that their parents do.

Historical Context

Given that a major concern of this study was father's perception of their child's weight status, an important underlying question was what current and historical framework influences their thoughts on CHO. In order to set the stage for the remaining questions, participants were asked to reflect on what they may have heard or seen in the news with regards to CHO. All participants responded that they had heard something in the news regarding CHO. Based on that question, each father elaborated, making some reference to the past and the way they had grown up. For each of the fathers, these changes were based around two areas: their perception that sedentary activity has

replaced physical activity and that increased fast food availability has replaced more nutritional meal choices.

Sedentary activity

With regards to sedentary activity, David commented on the fact that things had changed since he was growing up. According to him things have changed due to the reduced amount of physical activity that children are engaged in,

...back then my parents would [tell us] ... 'go play'. So some of [us would] go out there in the yard and play - whether it's basketball, baseball, shoot marbles, it didn't matter. Get out of the house. Go do something. You know we didn't have the video games like they have now. We didn't have MTV, like they have now, or you know the BET or VHI [channels]. All that's cool, you know, there's a place for everything, but we didn't have those types of things to keep us occupied in the house. So we had to go out and play with our siblings or play with our cousins or neighbors outside of the house and that's what we did for the most part of the day. Nowadays, it's more of a task to get them away from the X-box 360, and the Play Station 3 or the Nintendo.

Brad made similar comments, noting that changes in availability of things to do *inside* the house contribute to the problem:

We [are] in the age and times where electronics and technology are so advanced. Where the kids don't really have to leave the house to do anything and kids are just sitting in the house, you know, watching TV, playing video games and just eating. They're not getting that exercise that they need to get. I grew up in an era that - if you wanted to go play and do something, you had to go outside and do it and our parents sent us out of the house. I mean, they got us out - got us outside doing something.

Mitch also commented about how children don't spend the same amount of time outside as they did when he was growing up,

I think society's kids they do not exercise enough... They spend a lot of their time on the computers, in front of the TV, and in front of the video games...and you know things of that nature... So, they don't get outside like the older generations,

who are probably, say for instance, around 40. We found things to do outside - we were outside kids. But the kids today, they don't spend enough time outside doing things, I fault the parents for that.

Although Phil did not make a historical comparison between sedentary activity in his childhood and current levels of sedentary activity, he did mention that he grew up playing sports and that he was heavily involved in them from a young child. His involvement shapes his beliefs about involving his own children in sports at an early age.

Sports are a very big part of our life (speaking of his family). I have always played sports, starting from when I was a child. My father was with the Cleveland Indians organization for a very small time and I played baseball, football, basketball, ran track - all that good stuff... I instilled sports in my kids from 3 to 4 [years old] – when they turn 4, it's all systems go with the sports and they all run track, except for the 2 year old, of course.

Fast food availability

In addition to indoor sedentary activities replacing outdoor recreational activities, David also asserts that he has witnessed an increase in parental openness to fast food as an everyday source of nutrition, since his childhood ,

I mean, growing up the way we did... there was a big difference. There was a Burger King and all this other stuff but our parents didn't allow us to eat all of that... They didn't feed us that everyday... Nowadays it seems like... TV and Nintendo and everything are raising the kids and McDonald's and Burger King and Sonic are feeding the kids.

Brad recognized a difference as well, but related it specifically to his neighborhood and the changes that he has seen over time by living in the same community,

Man, I remember when there was an open field over by my mom's house where we used to play – you ever heard of stickball?[I nod my head and smile and we both laugh]. Now, it's a strip mall with all this junk food and stuff to waste

money (shaking his head). It's a shame but now everywhere you look, you see somebody's fast food. None of it's good. I used to work [in a fast food place] and it was crazy to see all the parents come in and get these huge buckets of chicken – even on the weekend! And I knew most of them, so I know they have time to cook - they don't even work!

In terms of fast food availability, Mitch shared his perspective

Fast food is everywhere. McDonald's, Burger King, Wendy's. I try not to eat it but when I was growing up, we did not eat fast food. We ate what mama cooked. We didn't even ask for that stuff. Kids now see the McDonald's sign and start screaming for it. My daughter knows not to ask me for it.

Phil also commented on the fact that things had changed since he was growing up and that, according to him, those changes in family structure, as well as in the availability and access to fast food are to at least partially to blame for CHO

Well back in my day, we didn't have anything but McDonald's, Burger King and Kentucky [fried chicken]. Now you've McDonald's to the second power, Burger King... Jack in the Box, Wendy's. All these fast food places and they definitely - I mean, you know how they say 'There's something in the chicken?' They shoot these chickens up with steroids and stuff nowadays... I believe that this generation of parents are not raising their kids 'old school.' The mom did more cooking back in the day... You didn't have a lot of single women. A lot of moms and dads stayed together back in the 70's and 60's...The mom did the cooking and all that. Nowadays you have a lot of single women who work and really don't have time to come home and cook all the time. So they'll stop off at McDonald's or the nearest fast food Timmy Chan and get some chicken and rice and, you know, that's what the kid eats.

This framework serves as a background and sets the stage for the remaining research questions. It is important to note that these parents were all around the same age, which made their shared experience of the historical context even more relevant. More will be said about this in the discussion section (Chapter V). Having set the stage with this data, the remainder of Chapter IV will be used to explore the themes and subthemes that emerged from the data. These themes are organized based on the following research questions for phase 2 of the study: RQ1: What factors do fathers perceive as contributing to CHO (in their children or in others) within the home environment? RQ2: What are the fathers' perceptions of medical definitions of overweight (particularly BMI)? RQ3: What nomenclature is used by fathers to describe child weight (medical and/or nonmedical)?

Research Questions and Resulting Themes

RQ1: What factors do fathers perceive as contributing to CHO (in their children or in others) within the home environment?

Fathers identified four themes that contribute to CHO: Lack of Parental Responsibility, Genetics, Lack of Time and Money to Prepare Healthy Foods and Amount of Physical Activity/Sports Participation as contributing factors.

Lack of Parental Responsibility

Based on the initial question about CHO, the fathers all launched into dialogue about parental responsibility for their children's physical activity and nutrition. The fathers' communicated an overall perception of parents with an overweight child as that of financially disadvantaged parents who have little time to spend on promoting healthy

choices, are not very knowledgeable about healthy living strategies and are not willing to take responsibility for their child's health.

David expressed his opinion that parents should “*take an active role in making sure their kids get out there and do something.*” In terms of parents responsibility in taking care of their child's health, he went on to say that

The parent is responsible for their kid, as the kid's guardian, and should be responsible enough to make sure that they're responsible for that kid's health and wellbeing. I don't think that they should push that off on the education system. I don't think they should push that off on any kind of community programs. I think that the parents should be responsible for making sure that their kid gets out there and spends some time - even if it's not outside playing - spends some time doing some kind of activity.

Brad volunteered similar sentiments on the subject of parent's involvement in making sure children maintain healthy weight.

I definitely think that that is something the parent needs to do. They need to be involved with their kids - get their kids more involved. Get them out the house. Get them off their Play stations and video games. Even if it takes [the parent] getting out playing with them. They need to get in 30-60 minutes [of physical activity] a day, everyday. That's something that they [the parents] should be doing.

Phil also felt that helping children maintain healthy weight was a parental responsibility. He mentioned early in the interview that he blamed the parent for childhood obesity. When asked what he thought the parents were doing or not doing, he responded

From day one, when they are very young... they're letting the kid pretty much dictate what they wanna eat, when they wanna eat and, not giving it to them in moderation - constantly feeding them and things like that. I mean a 3 year old weighing 70-something pounds? That's crazy! So I pretty much blame the parent

because the kids can't cook. They can't go to McDonald's and buy food so I blame the parents on that.

Although Mitch's child was not overweight, during his interview, he mentioned a relative that has an overweight child. When asked why he felt she had become overweight, Mitch had this to say about parental responsibility

Everything goes back to your parents...kids are still impressionable at that age. They're still impressionable. If your parents don't make you do it, you know, the kid is not gonna go do it themselves and especially if the parents is not doing anything. If the parents are not doing it themselves, they're not going to make their kids do it. And then if the parents have never done it, it's not going to happen.

When probed further, Mitch alludes to several reasons why his young relative might be overweight, but still maintains his stance that the parents are ultimately responsible.

The thing about it is, no one forces food down a kid's mouth... It's a choice - you have to eat to live, but you don't live to eat. So, it's a choice for you to put that food in your mouth. You know, it's a choice for that parent to go in there and buy that stuff, to say well, 'I'm [going to] put bad stuff, instead of putting some good stuff in [them].' There's more bad stuff in the house than good stuff. So, it's nothing but a choice. So, if the kid is still in your house, it's the parents fault.

Genetics

The fathers further elaborated on reasons why children might be overweight, citing genetics as a potential reason. The fathers used the term 'genetics' to indicate that the tendency to be overweight and/or obese is inherited from parents and is unavoidable. However, the term genetics was not just applicable to overweight. The fathers also used the term when speaking about a person's propensity towards thinness and about inherited characteristics pertaining to overall body structure (e.g. a person being 'thick')

or 'big-boned'). The 'genetic predisposition' to being overweight was a part of the narratives for each of the fathers. Regarding his oldest son, David used his own weight patterns to illustrate what he believes will happen with his sons

But, uh, for the most part... I was short and fat when I was in the 12th grade and then that summer, after the 12th grade, I had a growth spurt and I lost - I didn't lose any weight, I just stretched... (laughter). But, he is now almost my height, he's 14 and you know...I was a big kid and my kids, my sons - they're the same way. I mean they get to a certain age and they grow out of it...this was kinda in the genes.

Phil felt very strongly that genetics were a factor and used a family that he was familiar with as an example of how weight patterns exist in families.

I'll give you a perfect example. I have a youth football league. There's this one family - the Smiths - the dad is like 6'2, 290. Big, big guy (but he's a little more on the wide side than I am). The mom is about 5'5/5'6 - 300 lbs! She's very large. Now I coached the oldest boy which is --- he's gonna be tall. That boy weighs 200 lbs now and he's only 13 years old!...That comes from heredity because their mom is large, the dad is large, too. The dad has large brothers and the mom has large sisters. Then they have another son that's 10 years old, he weighs about 170. They have a five...he weighs 100 pounds! And they had a daughter. The daughter, the daughter is about 3 [years old] and she every bit of about 60, 70 [pounds]!

While it was clear that all of the fathers believed that genetics played a part, when asked to elaborate further on why he felt that this family's weight problems were genetic, Phil exclaimed "Man, that little girl came out huge! She came out like ten pounds plus! The little girl, the daughter! Where the average baby comes out 6, 7 lbs - this baby was 10 plus, but her mom is like 300 [pounds]!"

Regarding heredity and his children's weight, Brad made the following comments about their mother's weight patterns: "My 15yr old...his mother you know, is

tall. She's a big girl, but she's tall and has always been small. She just put on weight as she got older..." To this, I asked if he thought that his children were naturally slimmer due to genetics. Brad replied "Right." Speaking of his 11 year old daughter, who Brad acknowledges may need to "slim down," he attributes her size to genetics, as well. Brad explains, "I look at my genetics, at her mother's genetics, I mean she is naturally just a solid, thick girl." Brad also expressed how genetics play a part in child weight, based on parental weight, using this example,

If you have two solid people and they have a child - their child is not gonna be skinny. They are gonna have a 'natural weight' about them, but you've got to control it. You can't let it just go on and they get obese with it. If you look at most kids that are obese with it, 9 out of 10 times their parents are obese too. Two big people are gonna have a kid and that kid is just gonna be - I mean, I see it on programs, on TV and they have these little kids - 5 or 6 years old and 140 pounds. I've seen it. I mean, we had a little kid and his parents, he was 4yrs old and his parents put him in flag football and the boy was 109 pounds!

Mitch also felt that genetics plays a role in whether or not a person would have a 'body structure' that would allow them to be classified as overweight. Here he compares two people of similar height and weight,

You may have a 5'2 person at 200 and another person at 200 and... I mean, one of them may be a person that works out and their genetics - there are just naturally big people in their family. And you might have another person that's just small. So in that instance, for the most part, it just balances out different because of the body structure. You know, they have the same weight with a different body structure.

Based on the fathers' dialogue, it is obvious that they believe that genetics play a role in child weight status. However, it was also apparent that they believed that these genetic factors did not necessarily mean that a child had to remain overweight. Although the fathers spoke about nutrition and physical activity making a difference in child weight

status, they did not necessarily make the connection that a child who had a genetic predisposition to be overweight could lose weight by changing their habits. Rather, the prevailing thought appeared to be that children could “grow out” of this weight status or their body structure could help “balance out” the excess weight as they got older.

Lack of Time/Money to Prepare Healthy Foods

All of the fathers cited lack of money and/or time to buy healthy foods as a contributor to CHO. In general, fathers felt that cheaper foods were more accessible and that the cheaper the food was, the more detrimental it was to your health. For the most part, the fathers did not mention that they had any financial difficulty providing for their children’s nutritional or physical activity needs. Phil did not mention any financial problems and, indeed mentioned helping other parents financially, who could not afford for their sons to participate in his football league. Mitch, the only participant who was not working full time, mentioned moving home with his parents to cut expenses, but never mentioned any financial stressors in terms of his daughter’s needs. David painted a conflicting picture of his finances by, on the one hand, talking about paying for his children’s extra-curricular activities and their video game consoles and then, on the other hand, lamenting the cost of healthy foods choices. David cited the cost of foods, particularly organic foods, as a barrier to eating healthy,

...unhealthy foods are the cheapest foods to get. That’s pretty much what it comes down to - unhealthy foods are the cheapest foods that you can buy. The healthier foods, you know - it really kinda kills me how we do this in society, but we actually, ‘if you wanna be healthy it’s gonna cost you’... The organic stuff, the stuff that’s supposed to really be good for you and really, really healthy for you - is gonna be twice the cost of this other stuff! It costs to be healthy.

David went on to offer examples of foods that he considers cheaper, unhealthy foods,

You know, you can get like, these little cans of Vienna sausages, 5 for 1 dollar. Ok, you go buy like an actual pack of sausages, you may spend 5 bucks for 1 pack. Ok so, it's cheaper that way. It's things like that that you have to take into consideration and when it comes down to it, it's cheaper to eat unhealthy than it is to eat healthy.

Mitch shared similar sentiments about the cost of healthy foods as it relates to income and food choices,

Well, income factors in... A lot of times the cheaper the food, the worse it is for you. A lot of times, income [is a] factor in what you can and what you can't buy. If you've got a low income, you are going to get something that's cheap and you are just gonna eat. You've just got to eat to survive.

Two of the fathers also cited lack of time as a contributor to CHO. Fathers felt that other responsibilities, such as work and school took time away from activities like cooking and preparing meals. This was particularly true if there was no one else helping with these responsibilities, as in the examples that they provided of single parents. Phil felt that single-parenting and the time involved to work and take care of other responsibilities might interfere with a parent's ability to cook, particularly a single mother. He used the mothers of boys in his football league as examples,

...with the women having to work to make ends meet, she doesn't have time. And then you get moms (I had a few) - they were single with a son or two, or three or whatever... they would go to work and they would try to go to school, too. Like maybe one day a week or two days a week...and she didn't have time to do any cooking. She's coming straight home with McDonald's.

Mitch felt that, among other things, time might be a factor for parents in terms of attending to their children's health in general,

...it could be different things. You know, the parent probably works too much... I think it's because the parents don't put enough time in to show - to guide the kids, to tell them what you should and what you shouldn't do. Because, like I said, you have to work. Maybe it's because they're working too much.

Brad was the only father who actually referenced himself when talking about the time involved in preparing foods. He shared that his girlfriend will come over “every now and then” and help cook, but he doesn't allow his children to cook, except for microwaveable foods. He explains how he manages with the time factor involved and alternatives he has to cooking “square meals,”

That's definitely something I need to work on... I try not to allow my kids to eat a whole lot of sweets. You know, I don't get them a lot of candy, stuff like that. I try to, every now and then, make sure they have a square meal. With the hours I'm working... one night it [will] be Hamburger Helper, you know, and the next night...I may fry some chicken wings and fries or maybe hamburgers at home or something like that... But then on the weekends, I'll grill some - smoke some meat with some dirty rice and some vegetables, some greens and stuff like that...I mean, I try, you know?

Subtheme A: Sports as Part of a Healthy Lifestyle

All of the fathers advocated for involving their children in sports or some type of physical activity. Three of the fathers cited competitive sports as a way to help add physical activity to children's routines. Due in part to snowball sampling, there was an overrepresentation of fathers who were involved in sports in some fashion. Specifically, Phil and Brad were former athletes, who currently coached junior league football and Mitch was a former athlete, as well. This needs to be considered as a limitation of the study, in that fathers who are not former athletes might have a different opinion of the utility of sports.

Brad remarked on his children's participation in competitive sports, noting that all of them were in sports, except his youngest daughter,

My son is in football... After football season is over, they still have after school weight lifting and exercising going on. My 13 yr old is in basketball, so she has practice after that clearly, but even before basketball season [she plays] volleyball.

On adding physical activity, for his youngest daughter, Brad remarks that he wants her to be more active so that she can prepare for basketball season and be more competitive,

I want her to tone up more and - playing basketball - you need to stay active. [Don't just] sit around and get lazy and just think about the way you practice at school, you need to practice at home too - to better your game. You know, to better your ability to play basketball...Not just because 'I want to play and I made the team' - make the team and be one of the stand-out players on the team.

Mitch expressed his belief that sports (particularly track) and proper nutrition, during track season, were the reasons his daughter would not have weight problems. He also expressed his frustration over the fact that his daughter's mother does not encourage her to play sports,

I was an athlete; her mom was an athlete too. What gets me is - her mom was an athlete, but she doesn't care about it. She doesn't care about her being active or anything of that nature. So if I wasn't in her life, having her do active stuff, it probably wouldn't happen because her mom is obese now.

Even though he was the only parent who advocated for her to participate in sports, Mitch noted that his daughter's mother makes her eat right, "*Because she knows that my daughter is an athlete. Even though she doesn't push her in it [the sport], she knows that she has to eat for her to get ready.*"

Phil also expressed that he felt strongly about involving his children in sports and spoke of the benefits of track, football and other sports in terms of keeping children active

So track will definitely keep you in shape and my boys they've all played football since they were like 4 years old – 5 years old and my daughter has always been a cheerleader and she runs track. I wasn't obese as a child and I've always been active with sports. My kids are in sports and I think keeping them in sports and being active and going from practice to practice, game to game, I think that has a lot to do with them not being obese at this time.

Phil added that lack of physical activity was what he saw as a problem for a lot of children, once competitive sports season was over. Using his children as an example, he says,

...see my kids play sports year round. My boys play football and my daughter is cheering at the same time. They play [also] basketball. Now all of them don't play every year, but when track comes back around in the spring, they all run track so they're pretty much active year round.

Phil also provided examples of a lack of physical activity, based on his experience with other families to illustrate the difference that playing sports makes in terms of child weight,

And then if you get the average kid - when football is over, that's it. They don't play basketball, they don't run track so they might be in shape from August to the end of November, when football lasts. And December all the way back to August they eat, they don't exercise and boom, they put on the weight.

Although David did not speak much on competitive sports as a way to maintain or control weight, he mentioned that his oldest son plays sports and that, “*He's like extremely active, he plays football, he plays basketball, he plays baseball and ... he always out there running behind something.*”

Subtheme B: Sports as Reason for Deviation from a Healthy Lifestyle

In contrast to the sports participation being beneficial, dialogue with the fathers presented the possibility that participation in competitive sports may bring about different acceptable norms and expectations for child weight and healthful practices. For example, Mitch based his decisions about what constitutes ‘eating right’ around his daughter’s track season,

...Certain times of the year she’s going to eat what she wants to eat. Certain times of the year she can’t eat what she wants to eat. You know there’s no soda; there are no sweets or anything like that. But that’s on her competitive time of the year, so she doesn’t get any. She doesn’t - not because I tell her she shouldn’t do it. It’s just because she knows that she shouldn’t do it because she’s in her competitive part of the year.

I tried to determine what these foods were that were off limits during track season and how his daughter knew which foods to avoid; Mitch responded “*I mean, that’s something you [just] know. I ain’t gonna say ‘rules.’ When you’re an athlete there are certain things that you can’t eat, if you want to... if you would like to perform to your utmost potential.*” When Mitch was asked which nutrition habits would prevail if his daughter decided not to play sports or couldn’t play, he shrugged this notion away and replied that she would always play “*something.*”

Along similar lines, Phil explains that his son needs to gain weight for football. Phil was adamant about the fact that it was necessary and beneficial for his son to gain this weight in order to be competitive. Prior to this statement, it was discussed that this weight gain might place his son in the “overweight” category, according to BMI charts. Phil responds,

5'11, 180 [pounds]? That's good for football because that's what he's going to college to do -to run track and to play football. So, in the football world, the more weight the better and for him being 162 [pounds] now and [gaining weight to be] 201 [pounds]... man I'll be loving that! ...So if he was active in sports - if any kid was active in sports - and they were 5'11, 200 [pounds] - but they were active in sports - that's a nice weight for football.

Since this deviated from what Phil had said previously about nutritional habits in the home, I probed more to find out how his son's weight gain of between 20 and 40 pounds, would be accomplished. The following discussion ensued

Phil: Well my 15 and 17 year old, I tell them to eat more, eat as much - because I want them to gain weight, because like I said, they are football players.

Researcher: Does it matter what they eat? Just so long as they eat

Phil: Oh no, it does matter. You know, uh, you know, my 15 year old, he has 2 more years. The 17 year old, he's about to go to college so I'm telling him 'eat as much as you can.'

Researcher: To get bigger for football?

Phil: There ya go! To get bigger for football. My 15 year old, I buy him - him and the 17 year old (whenever I come from the gym), I buy breakfast tacos. I get the potato and eggs, because potatoes put more weight on you. So that's what I'll serve them. I won't give that to the 10 and 11 year old. I get them the bacon and egg, (but it's turkey bacon, not pork bacon, like I said, we don't - [when] I cook, it's turkey bacon, turkey sausage, turkey everything), and I talk to them and I tell them that this is what you need to eat to put on weight 'eat these potatoes and eggs instead of the bacon and eggs...

Researcher: So it sounds like you think the boys are a bit underweight?

Phil: *Not the 10 year old.*

Researcher: Uh-huh, the 15 and 17 year old?

Phil: *I think they're underweight for football.*

Researcher: Uh-huh. What if they don't play football, how's their weight then?

Is it ok for just life or . . . ?

Phil: *Yeah, it's ok.*

Researcher: Or do they need to pick up a little bit?

Phil: *No, no, no, no they are both ok for regular life, but for football - no. Now the 17 year old is going to college on a track scholarship, so you know he doesn't need to be 200 lbs. You know, 162 is probably ok for him... but the 15 year old? He's underweight in my opinion, for football, and for the coach's opinion. He only 150 and he's trying – he plays linebacker, so he needs to be at 200.*

Brad felt that his son needed to put on more weight for football, as well.

However, based on his son's position, Brad is not concerned about him putting on as much weight as Phil wanted for his son. When he mentioned this, the following conversation ensued:

Researcher: Tell me what that means to you, in terms of your son putting on more weight? What weight do you think would be a good weight for him, for football?

Brad: *Uh...for the position that he's playing*

Researcher: Which is?

Brad: Right now he's playing receiver and he plays cornerback. My whole thing is, I say putting on weight, I'm talking about muscle weight, not just eating. You know, I know he needs to eat his square meals to generate the muscles, because muscles burn up fat and it burns up a lot of the protein and the stuff like that... he's not on any supplements. No whey protein, no creatine - none of that. He's strictly just hitting the weights, toning up his muscles, getting the muscles bigger... Basically he wants to put on another 10 pounds and get up to like, 145, 150.

Phil and Brad both felt that this weight gain for sports was legitimate weight gain and did not equate this with unhealthy weight. It was obvious from Phil's dialogue, that he knew that excess weight was not healthy, but was willing to sacrifice for the sake of his son being competitive and possibly receiving a college scholarship. This contradiction was unexpected and troubling to me, especially since it came from a coach who has the potential to affect so many other children. However, after researching this further, I was surprised to find that this was common practice in football. I discuss this further in Chapter V.

RQ2: What are the fathers' perceptions of medical definitions of overweight (particularly BMI)?

In order to gain information about fathers' reactions to BMI, I asked each father how they would react if they were told that their child's BMI was high. Although the responses varied, understandably, based on their child's actual weight, by-in-large the fathers did not consider the BMI scores a reliable indicator of child weight. The fathers

expressed three major reasons for their lack of faith in this indicator. According to them the BMI was inaccurate based on health, genetics and/or cultural (race-based) reasons.

David expressed his belief that BMI was inaccurate, and that child health should be more of an indicator of weight problems,

I don't really worry about the BMI as much because the BMI is numbers. Ok? I love numbers, but... I would be even more interested in seeing that the child is healthy as far as the way the child acts... That would tell me more about the health of the child, you know, even though I'm not a physician. That, to me would tell me more about the health of the child than the BMI. You know, I mean, the child can get out there and run and play and have a good time, is not all winded after 5 minutes or the child doesn't have to go sit down... Maybe that's just part of that child's genes, to be heavyset, but as far as the BMI... you know I can't really say that that's gonna be my leading factor in saying that you're not healthy.

When Phil was asked how he would react if he was told that one of his children was overweight, based on his BMI, He initially said, “Well, I mean, unless it was some kind of health signs, I would just keep it moving.” To this, I probed further by asking, “Like health signs, like what?” Phil replied,

If they said well, at this rate he is looking at being a diabetic early or whatever, then I would have to weigh it, then what do I feed him? What is he eating? Does he exercise? Things like that, before I be like ‘ya’ll are crazy’. You know, he exercises all the time or whatever.

When probed further, Phil began to divulge his thoughts about BMI’s inaccuracies based on the fact that it does not include a measure based on race or ethnicity. Phil expressed that BMI is biased, because it does not take into account varying body structures that he felt were specific to certain races. In his opinion, the people that determined the calculations for BMI based them on their own standards of

acceptable weight based on their racial characteristics. On this topic, Phil's response was very intense and blunt.

Whose scale is this? But the one who's making all of these – and allow me to speak freely - these are white folks. These are white people with this assessment. You don't - we don't hear a lot about it, but I don't think there's very many cases [of African Americans] talking about anorexia and bulimia. That's white girls with this, 'I can't eat, I wanna be on the cheerleading squad or the dance team' or whatever. Those are the ones that are throwing up their food. You don't see black girls doing that. So when you say overweight and all that - that's white people's stuff, that's not Black.

Phil continued talking about BMI, becoming more and more animated in stating his beliefs that it is inaccurate based on the fact that it does not take race into account. Due to this lack of cultural relevancy, Phil is suspicious of the process for developing this tool,

Ok then, I'm going to get to the bottom of it. I'm like well, who is BMI? Who are they? What nationality is this made up of? You know, is it a bunch of Caucasian people on this board? Or a bunch of Asians? Because Asians are not big people - height or weight, you know. Is it a bunch of Asians? Is it a bunch of Indian people? Indian people are not really big so who's making this up? Who is determining this? I mean, I understand the body mass index you know, what percentage fat... I don't buy into that AT ALL! Because, like I said, I want to know who is on this board? Who sits around and makes this up because, you know, you got sisters walking around and to us brothers, man they are fine as all outdoors! You get a white guy or a white woman and they are like 'Hold on, you know, Shaniqua? She's fat!' Whereas [Black men] think she is fine.

Phil and I went on to discuss how BMI considers age, gender, height, and weight, and asked Phil what would make it more reliable, in his opinion. Phil replied that "race" should be added. He felt that this would make the BMI more realistic.

In contrast to the other fathers, Brad did not express suspicion or negative opinions regarding BMI as a tool. He expressed earlier in the interview that he was

concerned about his 11 year old daughter and he was very amenable to making changes to benefit his children. He also expressed that he wanted to get his 11 year old more active, indicating that he had already contemplated making changes, although he denied having had a healthcare professional tell him anything about his daughter's health or weight.

Researcher – Let's just say that I tell you that your 13 yr old daughter is underweight, based on my BMI chart.

Brad: *I don't, I don't... I mean, if she was underweight, I would feel that she needs to eat some more. You know, and eat the right type of food, you know, exercise - build her muscles up.*

Researcher: Ok. What about if I tell you that your 11yr old daughter is overweight based on my chart?

Brad: Uh, *She's act- I need to get her more active.*

Researcher: Would that be enough for you? If I tell you that and I'm a doctor or a health care professional?

Brad: *Yeah.*

As an alternative to BMI as an indicator of excess child weight, fathers were more inclined to mention bone structure and body structure. These two terms appeared to be descriptors for the visual assessment of how height and weight are proportioned on an individual. Bone structure was used to denote that a person was tall and had "thicker" bones. This thicker bone structure allowed for more weight. Phil used athletes as an

example of varying bone structure, pointing out that tall athletes can carry much more weight because their, “*bones are bigger.*”

Three of the fathers mentioned that BMI is inaccurate because it does not account for bone/body structure. In probing to try to clarify what they meant by these terms, I received various definitions from the fathers in an attempt to illustrate their perception for the overall body structure of a person who is overweight. When I began to question Mitch about his statement regarding different body types, he became a bit flustered, but managed to give a definition involving a comparison of people of similar weight but differing body types.

Researcher: You said that, sometimes the scales are different for different body types. Can you tell me what you mean?

Mitch: *Can you clarify that question please? Because I mean it's, ... There's no certain body type, you know, when you're talking about the scale. There are all different types of body types, but I can't say what their scale is based on.*

Researcher: Well, you mentioned body type when we were talking about scales and I asked you if you thought they were accurate and if the doctor said it, would you go with that, and you said it - you thought 75% of the time it might be accurate, but there's different body types and sometimes it's just different body types, so I was just trying to understand what you mean.

Mitch: *I mean, there are different body types. I mean, there's small, medium [and] large. There are some thick people there are some petite people... Take two different people, one person may weigh 135 and the other person may weigh*

135, but they've got different body structures. You may have somebody that's 200 [pounds] a man that's 200 [pounds], or a woman that's 200 [pounds] or two women that are 200 [pounds], they've got different body structures. One person that's 200 [pounds] may be healthy, but another person that's 200 [pounds] may not be healthy.

In giving this definition, Mitch used his hands to depict a shorter person and a taller person. He also made silhouettes in the air to depict a person who was not proportionately shaped, versus a silhouette of a person who I surmised to be shapely.

Similarly, when Phil was asked if he would consider his son overweight at 5'11 and 200 pounds, he replied, *"It depends on how it's proportioned out. You can have a kid that weighs 200[lbs.] 5'11 but it's all in one place - either in their backside or it's in their stomach."* When probed deeper, Phil indicated that this placement of weight on the body was what would determine whether the child was overweight. According to Phil, *"you can kinda look and tell."*

David expressed similar sentiments about body structure being a determinant of weight status and provided a detailed description of what he would consider before deciding a child was overweight,

Husky and chunky look like disproportionate so your arms are - your arms may be thick, your legs may be thick, your chest may be thick, but you don't have a lot of excess fat hanging off the front of you... But then when you get to a point where you're kind of fat or obese, you are really considered to be overweight - that's when you actually have a lot of extra material around the mid section as well as the legs and not just the legs, I'm talking about the legs into the calves, the calves into the ankles.

RQ3: What Nomenclature Is Used By Fathers to Describe Weight Status?

The fathers used various terms to describe weight status throughout their respective interviews. Although the terms came up naturally as part of the discourse on child weight, I probed to identify synonyms and to elicit fathers' definitions for each term. The terms "overweight" and "obese" were introduced by me, only if the father did not bring them up first. This was done in order to relate any nonmedical terms for child weight status to the two commonly used medical terms for child weight status. In this way, I was able to identify medical and nonmedical terms, synonyms and defining text. Transcripts from the interviews were searched thoroughly by two reviewers and every term that appeared to be related to weight was identified. Once a list of terms was compiled, each transcript was searched for all terms on the list - like terms were isolated by highlighting the term and any text that described the term from each transcript. Table 11 includes a list of the terms, context for usage, definitions and synonyms, as described by fathers in this study.

Colloquial terms used by the fathers included: thick, solid, husky, big kid, baby fat, chunky, husky, fat, big boned, chubby, fine, natural weight and skinny. These terms were sometimes used interchangeably with each other, but the more medical terms of overweight and obesity were seldom used. I got the distinct impression that they were somewhat "taboo," especially when describing child weight. Additionally, a few times when fathers used one of the medical terms (overweight or obesity) to describe someone, they quickly recanted and used another term.

Table 11. Words Used by Fathers to Describe Weight Status

Word	Synonyms	Description
Thick	Solid	<p>Brad</p> <ul style="list-style-type: none"> - Not with fat hanging off her - Her stomach is flat - That's your natural genetics that you've always been a thick or solid person. I mean that, that's how you, that's your body weight. That's how you are, you know? <p>Mitch</p> <ul style="list-style-type: none"> - You can have a petite woman that's thick. She may be 110 [pounds] but she's thick. - Maybe it's because she has muscles or she has more meat on her - They have, you know, I say denser muscles. You know, I say muscles are bigger or they're just, they're body is just bigger than a normal person. - They may have a little weight to them...They're, as they say, 'big boned' or it might be their muscle structure. <p>Phil</p> <ul style="list-style-type: none"> - Thick is a little more heavier [than fine]. Like if my wife weighed one, let's say if my wife weighed 166 instead of 160. If she weighed about 166, she would be thick. But if my wife was like 170, 175, she would be fat
Husky	<p>Big kid Baby fat (when younger, husky as you get older)</p> <p>Solid, but kind of soft</p>	<p>David</p> <ul style="list-style-type: none"> - Like being a size husky. So instead of a size 12, I was a 12 husky - The husky thing is more like on the youth side. Right, when a kid is growing up and a kid is still innocent you know, a lot of people would label it baby fat well, that's what they used to label it with me and then it was husky - I wasn't packing around a big belly - Husky and chunky look disproportionate. So your arms are - your arms may be thick, your legs may be thick, your chest may be thick, but you don't have a lot of excess fat hanging off the front of you. That's husky and chunky, ok? - Husky is something that you grow out of
Overweight	<p>Chunky, husky type thing.</p> <p>Overweight is between chunky/husky and obese</p> <p>Fat</p>	<p>David</p> <ul style="list-style-type: none"> - I think there is a difference between overweight and chunky - More weight concentrated on certain parts of your body, you have more weight concentrated on, let's say, the mid section. Ok, that's overweight. Not saying that you're not that active, it's just saying that maybe you need to change your diet. - Overweight you look at diabetes, heart disease, but obese you really look at diabetes, heart disease <p>Phil</p> <ul style="list-style-type: none"> - Well, well like I said if that woman eats that, that Reese's Pieces or that one French fry, she's gonna go from thick to overweight - Overweight, you know, that's touch and go - A thick black woman, she has, you know, a big derriere and you know, [she's] thick and we might say 'Man, she's one Reese's Pieces away from being fat! So she might be thick, but if she eats that Reese's Pieces, she's gonna go straight to overweight! If she eats that one Reese's Pieces or that one M&M she's gonna go straight to fat. <p>Brad</p> <ul style="list-style-type: none"> - They're not exercising. They're putting on more weight and it's hanging on them, they got a stomach or, if, if they're not solid like they were, they're not exercising. - If 20 pounds goes straight to the stomach <p>Mitch</p> <ul style="list-style-type: none"> - There's no kind of muscle structure... Just flabby, no kind of muscle structure.

Table 11. Continued

Word	Synonyms	Description
Fat	Overweight, obese	<p>Mitch</p> <ul style="list-style-type: none"> - Packing around a big belly...packing around a lot of stuff in front - But then when you get to a point where you are kind of fat or obese, you are really considered to be overweight. That's when you actually have a lot of extra material around the mid section as well as the legs - and not just the legs; I'm talking about the legs into the calves, the calves into the ankles. Ok? I'm talking arms into the forearms and into the wrist.
Obese	Fat	<p>Mitch</p> <ul style="list-style-type: none"> - Obese is when you actually have that mid section. That's overweight but then you also have the other parts that are failing because of that extra weight. You know, like your arms , your wrists, your, ankles, your feet, you know, that's where you get diabetes and all this other stuff - Overweight you look at diabetes, heart disease, but obese you <i>really</i> look at diabetes, heart disease - So that's where we actually see obesity actually take place, in the joints <p>Brad</p> <ul style="list-style-type: none"> - If 40 pounds goes straight to the stomach <p>Phil Mitch</p> <ul style="list-style-type: none"> - You'll see that. If a person is 5'2 and they're obese. That person has a little weight to them.
Chubby	Fat, thick	<p>Phil</p> <ul style="list-style-type: none"> - I'm saying, he was what they called 'chubby' back in those days...They don't say chubby anymore
Big-boned		<p>Phil</p> <ul style="list-style-type: none"> - Big-boned is more like, more like for tall big people, you know, who don't work out but they don't gain weight, but they don't lose the weight
Fine		<p>Phil</p> <ul style="list-style-type: none"> - I mean that that's kinda like when I said with my wife - I mean society might think she's overweight but you know the average black man on the street will say my wife is fine. <p>Brad</p> <ul style="list-style-type: none"> - 5'5 - 138 (woman) - If your weight is going to certain part of your body that needs it. Like if your legs are a lot smaller and you went and worked out and put on about 5, 10 pounds and 8 of them went on your legs and your muscles look more toned. You look good then.
Skinny		<p>Phil - 5'6 130 pounds [describing a female adult]</p> <p>Brad - 5'5 120 pounds [describing a female adult]</p>

Phil provides this rather blunt explanation of his thoughts on the usage of the term obese when speaking of adults,

In the African, African American community we don't say obese. That is a correct, politically correct, word to use, but if we see somebody walking down the street- whether it's a girl or boy - we don't [say] 'Man that guy is obese or that girl is obese'. No we gonna be like 'Damn she's fat.'

In addition to identifying the terms, two of the fathers volunteered examples of how the terms relate. David gave this ordering for the terms that he identified, “*You've got husky, chunky on one end and then you've got obese. If I had to, like, put them in order like 1 through 4, ok, I would have to say husky would be 1, chunky would be 2, overweight would be 3, and obese would be 4.*” Similarly, Phil began describing an order for weight categories based on his wife's height and weight and the following exchange ensued regarding weight categories for an adult, female who is 5'6. For each weight, I say a number and Phil responds,

Researcher: 160?

Phil: *She's "fine."*

Researcher: 165?

Phil: *She would be "thick."*

Researcher: 175?

Phil: *Just - yeah, yeah, you're out there.*

Researcher: Out there?

Phil: *That's "fat."*

Researcher: 130?

Phil: *She would be skinny to me.*

Phil was then asked to categorize his eleven year-old daughter's weight based on the same height and a weight of 160, the height and weight at which his wife was categorized as "fine."

Researcher: So if your daughter was the same height and weight?

Phil: *At her age? She's "fat!"*

According to Phil, his daughter would not be classified as "fine" at that height and weight, until she was, "*in her twenties.*"

In Mitch's interview, he appears to struggle when attempting to differentiate overweight and obese. For example, during his interview when describing his daughter's mother, he says, "*...her mom is obese now.*" However, when I began asking him a question about this statement, he quickly interrupted and said, "*I'm not gonna say obese. I'll say overweight. I may have said obese, but I'm going to say overweight.*" When asked the difference between the two, he offers, "*Well, to be honest it's a thin line. It's not really too much. What may be obese for somebody; may just be overweight for somebody else. So it's a thin line, right, because actually they're twins. You know, obese and overweight are about the same thing, they're twins.*" From this topic, the following conversation ensued :

Researcher: So this lady, that's 5'2, her obese status and her overweight status - I wouldn't be able to tell the difference?

Mitch: *You would probably know. Obese is a tad bit more than overweight.*

Researcher: So, maybe a difference of 10, 15, 20 lbs or 100 lbs?

Mitch: *I think whenever you use the word obese, you know, you're probably gonna say, or I'm gonna say 100 pounds, but it does differ from person to person. But 9 times out of 10, if you say obese that's gonna be a person that's at least 100 pounds overweight. People tend to say, 'a few extra pounds.' They tend to use that language loosely.*

Researcher: What do you mean?

Mitch: *Well, I mean when you use it loosely, you may say that they are, 'a few pounds overweight' or whatever, but 9 times out of 10 if they say that they are about 50 pounds more than what they normally are. Well, anywhere from 20 to 50 pounds. You know, if they say 'I've got a few extra pounds.' [I'll] put it like this - a person that says they're a few extra pounds - that means they're not in shape, basically, in my opinion. If a person says, a few extra pounds, they know that they're overweight.*

Chapter Summary

This study explored African-American father's perceptions of child weight status, their past and present views on child weight categories, acceptable weight for children and practices to maintain healthy lifestyles for their children. Figure 1 displays a summary of the main findings of the data. Findings revealed that the fathers perceived parents of overweight children as financially disadvantaged, irresponsible and overworked. Fathers in this study were knowledgeable about causes of CHO and encouraged physical activity, mainly in the form of sports, to promote optimal child

health. However, findings revealed that other benefits of sports may outweigh health considerations (e.g., competitiveness, educational scholarships).

Additionally, fathers believe weight categories are racially and culturally insensitive and do not account for individual health status or differences in body/bone structure. Moreover, fathers held distinct nomenclature for weight status, including several nonmedical weight categories, which preceded the categories of overweight and obese (e.g., before overweight comes chunky, husky, big-boned, thick, etc.). For the fathers, weight status is subjective and is defined by visual means (e.g., inspecting the child for excess fat around the mid section) and parental assessment of health status (child mobile/active, not out of breath). A discussion of the findings, including triangulation of data sources will be applied to cross-check findings from this study with other published findings in Chapter V.

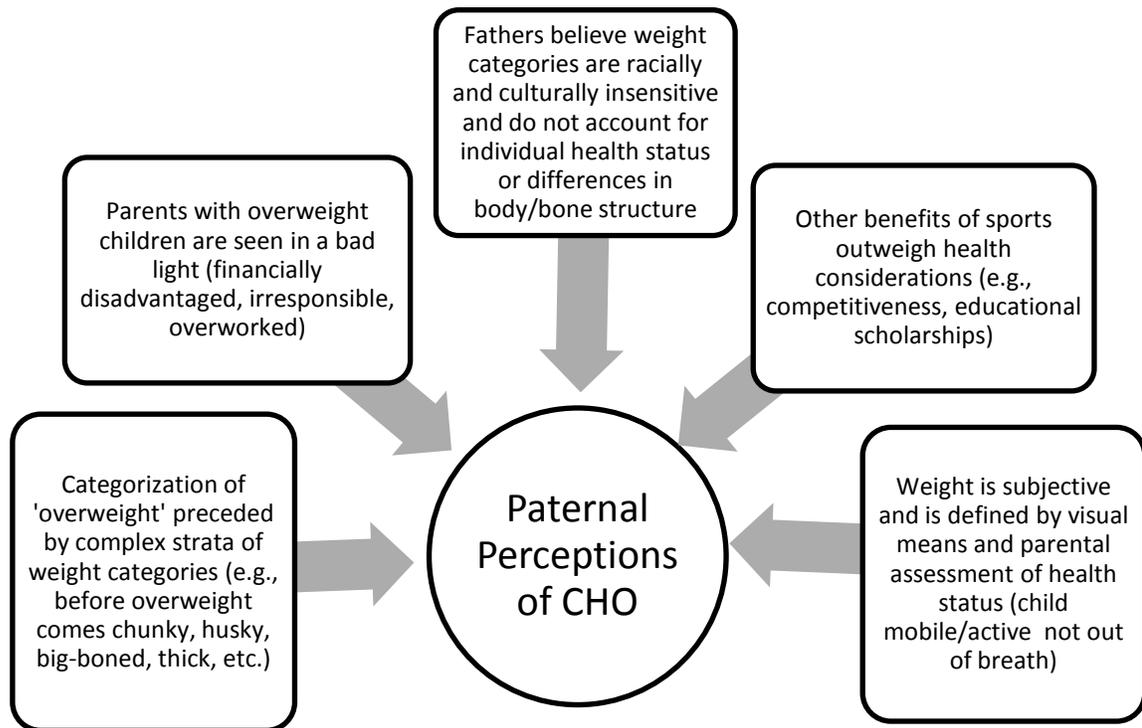


Figure 1. Summary of Perceptions of CHO

CHAPTER V

SUMMARY AND DISCUSSION

The purpose of this dissertation was to explore fathers' perceptions of CHO with relation to their own children's weight status, as well as their perceptions of the causes and treatment of CHO within the home environment. In order to accomplish this, a two phase study was conducted, which included an integrative literature review and a qualitative case study. The primary purpose of phase one, the literature review, was to explore and describe the research literature focused on parental perceptions of their child's weight status, with the intention of using the findings to inform the subsequent case study research on paternal perception of child weight status. The primary focus of phase two was to explore African American fathers' perceptions of CHO, specifically focused on understanding the factors that fathers perceive as contributing to CHO (in their own children or in others) within the home environment and how medical definitions of CHO coincide with fathers' perception and/or definitions of child weight status. The analysis of the findings focused on the research questions and subsequent themes that emerged during the case study interviews. This chapter includes a summary of the research process, a discussion of the research findings, implications for healthcare professionals and health researchers and recommendations for future research and practice. Additionally, as is often the case with qualitative research, I included personal reflections on the research process.

Summary of the Research Process

By gaining an understanding of the reasoning behind inaccurate parental perceptions of child weight status, health researchers and health care professionals may be better able to engage parents in helping their children achieve and maintain healthy weight. In phase one, a review of the literature on maternal perception of child weight status revealed that the majority of mothers do not perceive their overweight children as overweight. Likewise, studies that purported to examine parental perception (as opposed to focusing solely on maternal perception) of child weight yielded similar results.

At first glance, these findings appear to indicate that neither parent (mothers nor fathers) accurately identified child weight status. However, as discussed in chapter three, studies that claimed to examine parental perception, largely failed to include fathers in the studies (see Table 7, Appendix A). Indeed, only one of the thirteen studies (Adams et al., 2005) reported any fathers' data in the results or conclusion. This lack of inclusion of fathers has resulted in a lack of understanding of how fathers view the problem of CHO in general, as well as how they perceive child weight status within their own families and a lack of direction for how to engage fathers in the treatment and prevention of CHO.

In an effort to explore fathers' perception of child weight status, I conducted semi-structured case study interviews using open-ended questions as a guide. The interview questions were designed to encourage discussion that would lead to an understanding of the context of African American fathers as health liaisons to their children with regards to child weight status. Based on the lack of father inclusion on this

topic, the researcher was aware that this may have been an ‘untapped’ subject with the fathers. Therefore, efforts were made to delve deep into the topic and encourage fathers to engage in open, frank conversations without feeling the need to be ‘right’ or ‘wrong’ on this topic. Nonmedical terms were purposefully used to encourage fathers to feel comfortable using everyday terms and language when describing their experiences with the phenomena. In that way, the researcher sought to understand the context from the viewpoint of the fathers. In line with interpretive research, the interview guide was not a strict protocol, but rather, a way to begin the discussion. As fathers identified points of discussion that were salient to them, they were encouraged to explore those points and delve deeper into their own understanding of the phenomena. Therefore, although the variation is not substantial, it should be noted that the original research questions and the final interview questions differ, as often occurs in open-ended, semi-structured interviews in which subsequent interviews can introduce new questions (Kvale, 1996).

The interviews were conducted at local venues, including coffee shops, sports bars and lunch cafes. Notes and recordings of the interviews were taken to aid the researcher in capturing the salient points. At the conclusion of each interview, the researcher read back a brief summary of the main points and asked the father if the notes were accurate. Adjustments were made as needed. Before turning off the recorder, fathers were asked if they had any further information to add. In each case, the fathers added additional information. All audio-recorded interviews were transcribed by the researcher and a trained transcriptionist. Each interview was cross-checked between the transcriptionist and the researcher for accuracy. Once the interviews were transcribed,

additional member checking was attempted by contacting the fathers and asking them to read over the transcript for accuracy. Three of the four fathers consented to read over a copy and provide feedback. Only one provided feedback, which was that he was surprised at how long the typed transcript was in terms of pages. Once an attempt was made to solicit feedback from each participant, the researcher proceeded with data analysis.

Peer debriefing was a continual part of the research process. Several fellow students, as well as researchers in health education, social work, psychology and a healthcare practitioner were provided with drafts of each chapter as they were completed. Discussions about the findings also ensued after each interview. Feedback from the peers was invaluable as it was used to help the researcher recognize salient points in the research findings, identify and bracket for researcher bias and refine the research questions as the process evolved.

Discussion of the Research Findings

Although study data may be used to aid in understanding paternal perceptions of CHO, as mentioned in previous chapters, the findings of this study are only generalizable to the four African American fathers in the study and not to all fathers. This qualitative study is meant to be hypothesis generating rather than confirming. The researcher intends to use the study findings to generate hypotheses, as well as to inform current familial-based obesity prevention strategies. As such, heavy emphasis is given to how the findings might relate to practical application in clinical settings. The discussion of the data is organized by the questions explored during the case study interviews.

What are African American Father's Perceptions of CHO and What Causes CHO?

Fathers' perceptions of the differences between how they were raised and how parents are raising children today can help shed light on what behavioral interventions parents might be amenable to in terms of CHO prevention. This group of fathers was in the age range of 40 – 44; therefore, they shared common history with regards to this topic. The fathers recognized that differences in society and an explosion of advancements in technology over the past 20 years have had an effect on childrens' play and leisure activities, migrating from active lifestyles to acceptance of sedentary practices, and also that increasing availability of fast food has changed family nutritional practices. It is important to note that the fathers appeared to view these changes as negative and that they clearly linked them to CHO. Since fathers recognized that these changes in sedentary habits and eating patterns contributed to the problem of CHO, it is hypothesized that they may be open to behavioral interventions that address these areas.

Sedentary Lifestyles

When asked what they view as the cause of CHO, the fathers all believed that TV watching, playing video games and sitting while using the computer were contributing factors. In general, each of the fathers admitted to having less access to indoor sedentary activities, such as playing video games, watching TV and using the computer, when they were children. Instead, fathers recalled playing outside doing various activities such as basketball, baseball or shooting marbles.

These outdoor activities, involving physical activity of some sort, were what the fathers believed contributed to the absence of weight problems for them and among their

childhood peers. Several studies support that a greater number of hours spent in sedentary pursuits has been associated with a higher prevalence of overweight (Hernández, Gortmaker, Colditz, Peterson, Laird, & Parra–Cabrerá, 1999; Hanley, Harris, Gittelsohn, Wolever, Saksvig, & Zinman, 2000; Dietz & Gortmaker, 1985; McMurray et al., 2000) and higher BMI (Maffeis, Talamini & Tat, 1998; Obarzanek et al., 1994; Andersen, Crespo, Bartlett, Cheskin & Pratt 1998) in children.

Fathers in this study placed more focus on encouraging physical activity; in contrast to Jain et al.'s (2001) study in which mothers appeared to focus on modifying nutritional practices. Interestingly, Adams et al. (2005) noted that fathers “tended to be responsible for family recreation and activity levels” (p. 6). Based on this finding, the authors suggested that fathers may play a significant role in CHO prevention (Adams et al., 2005). Further research looking at parental role delineation (mothers' roles versus fathers' roles) in encouraging child physical activity may shed light on this finding.

Increased Fast Food Availability

In addition to sedentary behaviors, the fathers mentioned fast food access as a contributor to CHO. The fathers recalled having much less access to fast foods in terms of the proximity and sheer numbers of fast food places, as well as much less tendency for their parents to buy them food from establishments that sold fast foods. The fathers perceived increase in fast food availability in the US is well-supported. Between 1970 and 1980, the number of fast-food outlets in the United States increased from about 30,000 to 140,000, and sales increased by about 300 percent. By 2001, there were about 222,000 fast-food outlets in the US (Paeratakul, Ferdinand, Champagne, Ryan, & Bray,

2003). Studies also support the fathers' observations regarding fast food consumption. American children consume an average of one-third of their calories from eating out (Lin, Guthrie & Frazao, 1999), and one-third of American children eat fast food every day, according to a 2004 study (Bowman, Gortmaker & Ebbeling, 2004). Indeed, approximately half (48.5%) of all food dollars are spent on foods prepared away from home (United States Department of Agriculture/Economic Research Service, 2009). Adults and children now eat almost six meals and snacks per week at a restaurant (National Restaurant Association, 2009). Moreover, in terms of the nutritional value in fast foods, a recent study found that 93% of children's meals at the 25 largest chain restaurants failed to meet a set of nutrition standards based in large part on key recommendations from the *Dietary Guidelines for Americans* (Wootan, Batada & Marchlewicz, 2008).

It is interesting to note that qualitative research with mothers focused more on junk food than on fast food (Jain et al., 2001). Although there was no available definition from Jain et al.'s (2001) study to determine what the mothers meant by the term 'junk food,' fast food places such as McDonald's or Burger King were rarely mentioned in the study. This leads the researcher to speculate on the differences between maternal and paternal roles regarding child nutrition practices. It is hypothesized that fathers may be more focused on what they can control. In other words, they may be less involved in the food buying and cooking practices, but more involved in the disciplinary practices of setting limits and enforcing rules, such as prohibiting junk food and mandating physical activity. Indeed, Mitch mentions the word "control" when speaking

about children's eating habits, explaining that "When they get to school they [the parents] can't control...what the kids buy" However, mothers in Jain et al's (2001) study spoke about a 'lack of control' over their children's diets (p. 1140). Further research needs to explore these differences in perspective and possible differences in role delineation in order to understand what part, if any, they play in designing effective familial interventions.

What Factors do Fathers' Perceive as Contributors to the Current Problem of CHO?

After exploring the fathers' perceptions of the historical context of this disease, the researcher asked fathers to expound upon what they believe contributes to the current prevalence of CHO. Themes surrounding the research question of what causes today's CHO included lack of parental responsibility, genetics, lack of resources necessary to buy healthy foods, and the impact of sports on making healthy as well as unhealthy decisions.

I made careful notes to see if this discussion followed similar patterns as the discussion of historical context, and was surprised to find that there was somewhat of a disconnect. Contrary to the previous discussion, which was personal to their lives and habits, in this discussion the fathers shied away from mentioning their own habits with their children and instead spoke mostly in terms of the negative influences of other parents on their overweight children. This is similar to Goodell et al.'s (2008) study in which parents in the sample were able to identify some preschoolers from other families as overweight, but did not perceive overweight in their own children. When fathers did reference themselves, it was mostly in a good light, such as in the form of a good

example of what a parent should do. For example, when they spoke about physical activity, each claimed to be instrumental in involving his children in sports. However, in this study, I did not probe further to see if the fathers were actually distancing themselves and their children from CHO as a problem or if they were just speaking in broad, general terms. It could very well be that they were not excluding themselves, but were speaking in terms of an inclusive term 'parents' - including them. Further research is needed to explore whether there is a disconnect or the fathers were answering the questions regarding CHO in a global sense.

Lack of Parental Responsibility

Also interesting was how fathers in the study never mentioned 'fathers' (themselves or others) as being responsible for the problems with CHO. If they mentioned a specific parent that was responsible for CHO, it was always the mother that was mentioned. This finding may be indicative of a tendency for fathers to blame mothers and vice versa. For instance, Sosa (2009) found that Hispanic mothers in her study blamed the fathers for interfering with their efforts to implement healthier alternatives for their families. Likewise, mothers in Jain et al's (2001) study had similar complaints about fathers, describing scenarios where their authority over the child's dietary habits was challenged by the other parent. More studies are needed to examine this phenomenon.

Genetics

When asked about factors that contribute to childhood overweight, the fathers all cited genetics as a factor. There was a strong belief that child weight is determined by parental weight and that this is just a natural process. Two of the fathers recalled examples of children being overweight and related this to a family trait. These perceptions are consistent with the research literature. For example, the mothers in Jain et al's (2001) study believed that CHO was a result of heredity and could not be prevented. Mothers in Jain et al's (2001) study believed that child weight was predestined and was the result of an inherited body type. Similarly, in a 2003 study, Siebold, Knafl, and Grey found that parents attribute weight to genetics, not diet, and perceived that they had little control over weight. Fathers in this study expressed the same sentiments.

It is imperative to understand whether parents believe genetics are the main (or sole) determining factor in child weight status (such that interventions would have no effect) or if they believe that these effects can be mediated by healthy lifestyles and/or behavior change. In a study conducted by Sherry et al., (2004) the authors found that African-American mothers generally believed that their children would outgrow their overweight as they got older. Likewise, in Jain et al.'s (2001) study, mothers of younger children tended to believe that their child would outgrow being overweight - once the child becomes older, taller, and more active. Through probing to further examine the fathers' perceptions regarding genetics/heredity, I was able to determine that the

majority (three), believed that the effects of genetics could be mediated by children either growing out of it or by parents increasing child activity levels.

Lack of Resources

Fathers expressed that parents lacked the resources to practice healthy living strategies. These resources included knowledge, time and finances. It was interesting to note that the fathers in the study did not appear to have a substantial knowledge deficit in terms of nutrition or the benefits of physical activity for their children. Fathers provided rich details about what foods they considered healthy and unhealthy and spoke extensively about their perceptions of the benefits of physical activity. In her study, Jain et al. (2001) also found this to be true about the mothers' knowledge of healthy behaviors and added that mothers seemed to have more difficulties establishing and maintaining healthy routines than with knowledge of what foods were healthy.

Research supports that there is a relationship between socioeconomic status and obesity. However, studies have found that the relationship varies by race/ethnicity. Indeed, Troiano & Flegal (1998) found that Black and Latino children from families with higher socioeconomic status are no less likely to be overweight or obese than those in families with lower socioeconomic status. Because of the intimacy of the one-on-one interviews, and aforementioned research, I chose not to ask the fathers to disclose their salaries (or salary range). However, as mentioned in Chapter IV, the fathers did discuss their employment status and type of employment. Mitch, the only participant who was not working full time, mentioned moving back home with his parents to cut expenses. David painted a conflicting picture of his finances by, on the one hand, talking about

paying for his children's extra-curricular activities and their video game consoles and then, on the other hand, lamenting the cost of healthy foods choices. Phil did not mention any financial problems and, indeed mentioned helping other parents financially so their sons could participate in his football league. Brad was the only father who mentioned the expense of making sure his children participated in healthy activities.

Strauss and Knight (1999) concluded that the relationship among race/ethnicity, SES, and childhood obesity may result from a number of underlying causes, including less healthy eating patterns (e.g., eating fewer fruits and vegetables, more saturated fats), engaging in less physical activity, more sedentary behavior, and cultural attitudes about body weight. Based on Brad's family structure as head of a single-parent household of young children, it is hypothesized that any financial issues with raising his children in a healthy manner were confounded by similar factors as those reported from the Strauss & Knight (1998) study. In addition to those factors, Brad's status as a single father may add another dimension to his perceived difficulties in making and encouraging healthier choices for his children. Indeed, he shared his strong belief that he was not receiving the same amount of social or financial support as single mothers receive.

The fathers also believed that lack of time was a factor that impeded parent's ability to make healthy choices for their families. In terms of lack of time being a factor for the fathers in the current study, Phil, who was a self-proclaimed 'soccer dad' did not have this problem. Conversely, although Mitch and David both spoke about other parents having time management issues, neither of them mentioned lack of time as an issue for themselves. As was the case with finances, Brad the only single father in the

study, was the only one who expressed that time was an issue with regards to making healthy choices for his family. Although admittedly there is limited data to reach a conclusion, this led me to posit that time and expenses may be more of a factor for single fathers. Further research is needed to examine the roles of single fathers and what part they may play in CHO prevalence.

In all, fathers' perception of other parents who had overweight children was less favorable than the impression that they had of themselves, and this held true even for two the fathers in the study who had overweight children. The fathers' communicated an overall perception of a parent with an overweight child as that of a financially disadvantaged parent who has little time to spend on promoting healthy choices and is not very knowledgeable about healthy living strategies. This led the researcher to hypothesize that central to the issue of not labeling children as overweight or obese could be the fact that society's overall perception might mirror those of the fathers in this study. This finding could shed light on why parents might be reluctant to give their children the label of overweight or obese. Killion et al. (2006) speculated that parents might be unwilling or unable to provide truthful accounts of their perceptions for fear of society viewing them as not being a "good parent." Obviously if this is the case, the label has negative connotations for the parent as well as the child. Further research is needed to understand the psychological and social implications of child weight labels inadvertently communicating to parents of overweight children that they are bad parents.

Relationship of Sports to CHO

All of the fathers expressed that sports participation was a good way for kids to remain physically active. Indeed, three of the fathers were coaches or surrogate coaches for their children's sports team. This clear support of organized sports was in line with their expressed beliefs that physical activity is necessary for good health. However, this was not the only reason cited for supporting their children's participation in sports. Phil emphasized that football and track scholarships were a way for his sons to receive financial assistance with obtaining a college education. This dual purpose for encouraging participation in sports presented a potential health conflict. Two of the fathers mentioned that they were encouraging their sons to gain weight in order to play football. When questioned about the possible health impacts of this excess weight, neither father expressed concern. The fathers believed that the excess weight was necessary and justified in order for their sons to be competitive based on the positions (football lineman) that their sons held. This is not uncommon in high school football. Laurson and Eisenmann's (2007) study of 3683 high school linemen in Iowa revealed that the prevalence of overweight in this group was 45%. Further, the researchers shared that among the students surveyed, 9% would be classified with adult severe obesity. Although weight gain for football appears to be common practice, this was particularly disturbing in Phil's case because he spoke candidly about his own battles with health and how unhealthy practices (including gaining excess weight for football) had led to his

current diabetic state. However, Phil also recognized that football had afforded him (and his father who had played professional football, as well) many benefits in life, such as a college education, income stability and the ability to be self-employed.

In Mitch's interview, it was apparent that he viewed his daughter's healthy behaviors as an integral part of her training regimen in preparation for track events. Mitch reflected that his daughter's regimen during track season was one of healthy foods and physical activity in order to be competitive in her sport. However, he also revealed that when sports season was over, he relaxed his rules concerning his daughter's eating habits and allowed her to eat foods that were otherwise off limits during track season. According to Mitch, these foods included fast foods, more fatty foods and sodas. This led the researcher to question Mitch's motives for healthy choices for his daughter and ask him what would happen, with regards to nutrition and physical activity choices, if she no longer ran track. Mitch dismissed the question, stating that his daughter would always 'do something'. This left the researcher questioning the use of sports as motivation to engage children in healthy behaviors. While Mitch mandated healthy choices for his daughter during the sports season and then relaxed them in off-season, Phil and Brad were willing to promote unhealthy weight gain that may impact their sons' health in order for them to receive education and financial benefits by participation in football. In this way, sports were not a consistent, positive motivation for healthy lifestyles. Successful interventions must take into account conflicting priorities that may make recommended healthy choices less of a priority.

How Do Fathers Contextualize Using BMI to Determine Child Weight Status?

The fathers in this study did not accept that BMI, as a screening tool, accurately portrayed child weight status or was indicative of potential health problems in children. Moreover, the fathers' very candid interviews shed light on reasons why they do not accept this measure. Their detailed reasons were supported by their observations and by their understanding of the facts surrounding child weight and its relationship to child health. Reasons for not accepting BMI included perceptions that it was inaccurate based on: child health status, culture and/or race and body structure.

Fathers expressed that if a child does not behave as though he or she is sick, then they do not see cause for alarm over the child's weight, regardless of BMI reports. Jain et al.'s (2001) study found that mothers were likely to consider developing limitations in physical activity to be a more important indicator of their child being overweight than standard growth charts utilized by health care professionals. Similarly, in Reifsnider et al.'s (2006) study of Mexican American women, the mothers believed that an unhealthy child would have obvious problems in physical activities, such as walking or riding bicycles. This is an alarming finding, as it suggests that parents are waiting for illness or disability as a cue to action and missing opportunities to intervene before this occurs.

Three of the fathers suggested that BMI was inaccurate due to their perceptions that BMI calculations were insensitive to differences in body composition based on racial background. Conversely, an apparent preference on the part of minority parents for heavier children has led researchers to speculate on potential causes for this deviation from the majority culture (Killion, 2006). Furthermore, Goodell (2008) conducted focus

groups with mothers who self-identified as Latinos, African Americans, and West Indians and found that the participants considered growth charts ethnically biased and therefore invalid.

These research findings suggest that parents' observations of body size variations among children (and adults) of different races are instrumental in why they believe that race should be included in BMI. Indeed Phil stated that if race were included in BMI calculations, he would take them seriously.

What Medical and Nonmedical Terms do Fathers Use to Describe Weight Status?

Because the fathers did not identify with medical terms for overweight, the researcher wanted to understand what alternative terms, if any the fathers were using to describe child weight status. This question evolved as the interviews progressed because the father in the first interview (David) had such a well-developed concept of the words he used to describe child weight. After that interview, the researcher actively encouraged the fathers to provide definitions and assist with categorization of weight terms in order to get a deeper understanding of the terms, their meanings and the context in which they might be used.

As can be seen in Table 11, fathers used terms such as thick, husky, chubby, big-boned, fine, natural weight and skinny to depict weight status in children and adults. Similar to this finding, Jain et al. (2001) found that mothers in their focus groups described overweight preschoolers using terminology with less negative connotations than "overweight", such as "thick" and "solid." While I am not advocating the use of these terms by professionals to describe weight status, it is suggested that it is certainly

prudent to have knowledge of these words and the meanings that parents ascribe to them. Understanding what these terms mean to parents can help practitioners be more sensitive to cultural variations in nomenclature surrounding this sensitive topic.

Critique

In the midst of conducting this research, the researcher became involved in studies that examined social determinants of health and how they impact health outcomes. If this exposure had occurred earlier in the study, an attempt would have been made to incorporate discussion questions into the interview guide to explore information related to some of the well-known social determinants of health, such as work environment, opportunities for recreation, and food proximity. As it stands, the fathers provided rich information on their perceptions and understandings of the causes for CHO. This data contributes to the discussion on making sure that there is equitable distribution of the resources that support good health in America. I felt that I should have probed deeper in terms of understanding the different parenting roles, especially in light of the diverse parenting structures of the participants. Additionally, it is recognized that efforts to observe the fathers in a natural setting would have been helpful in terms of allowing more triangulation of the data and adding to the richness of the findings.

Implications and Recommendations

Implications

The findings from this study have implications for research and for practice.

Research Implications

In the past, researchers have examined parents' inaccurate perceptions of child weight as a complex form of denial. However, findings from the current study suggest that the fathers have a well-defined, thought-out rationale for not accepting BMI. This rationale appears to be rooted in fathers' personal experiences, as well as in their understanding of how BMI is calculated. By focusing on BMI and growth charts used to determine child weight categories, practitioners may be creating a negative atmosphere that introduces parental blame, denial and, as is the case with the fathers in this study, distrust and feelings of racial and cultural insensitivity. Very few studies have examined the preferred nomenclature for overweight in children. A maternal perception study conducted by Moore et al. (2008) indicates that mothers in an urban community clinic setting preferred physicians use the terms "at-risk" for overweight and did not like the term obese (p. 1230). They also liked terms, such as "unhealthy weight" and "weight problem" (p. 1230). Conversely, the fathers in this study shied away from using the terms overweight and/or obese when describing child and adult weight status, as well.

During the first interview conducted for this study, the father explained that these medical terms were not commonly used. This finding was not altogether surprising, but what was surprising was the level of detail that the fathers were able to provide to define each of the terms that they did use. As discussed earlier, when asked about how they would describe their own children's body weight, the fathers presented a very detailed explanation of nonmedical terminology that they felt comfortable using for child and adult weight. (See Table 11). This research implies that attention would be better

focused on examining ways to motivate parents towards helping their children achieve optimal health, regardless of parental accuracy in identifying clinical child weight categories.

Practice Implications

As was evident from this study, the fathers care about their children's health and well-being and are willing to take steps to bring about healthier outcomes. Findings from this study have huge implications on effective communication of child weight status. Reframing the discussion to focus on child health allows parents to focus on the positive aspects of feeling good about providing the best for their kids. Fathers in the study spoke about not wanting their kids to experience the consequences of bad health habits that they have experienced. This positive desire to protect their kids from harm provides a good starting point to begin discussions about child health. It is important to keep in mind that if initial attempts to engage parents in behavioral change are rejected, a process of negation may begin that is likely to have parents reject any messages regarding child health that bring about negative feelings and perceptions. For instance, Goodell (2008) found that if mother's in her study disagreed with the doctor's statement that their child was overweight, they refused to listen to treatment recommendations. Indeed one mother in Goodell's (2008) study had this to say after receiving the doctor's diagnosis that her child was overweight "I didn't believe him, so I couldn't see what he saw, so I didn't do anything about it." (p. 1552)

For practitioners, it is useful to keep in mind that the goal of intervention is to engage parents in making choices that will promote optimal child health. Whether

parents are engaging in the behaviors because they believe their child to be overweight is not as important as the fact that they actually engage in the behaviors. Creating a negative, guilt laden atmosphere is likely to turn parents away from the behaviors, in an attempt to shield themselves from unwanted psychological consequences. Reframing the discussion to not include weight-related terms is not a new concept. Moore et al. (2008) concluded that parents may be unresponsive or difficult to engage in discussions concerning behavioral health modifications if they have initial negative perceptions of the terms used. Also, as discussed earlier, if parents believe that the children will grow out of CHO or that excess weight will just go away on its own, they may be less inclined to act on cues to take action to prevent it. Reinforcing the message that nutrition and physical activity is important for all children does not allow for this thought process to be a factor.

Recommendations

Recommendations for Practice

Since all children stand to benefit from healthy lifestyle choices, replacing verbiage about child weight with verbiage about optimal child health promotes inclusiveness of all children, thereby embracing children, regardless of their weight status. While this might not be prudent for children who are obese or underweight, who might need more extensive weight management strategies, recommendations for healthy lifestyle choices for children who fall within the ranges of normal to overweight (with BMI between the 5th and the 94th percentile) are largely the same. For this reason, the following recommendations are given for reframing the discussion for CHO prevention:

1. Promote healthy choices without mentioning child weight.
2. Emphasize the benefits of healthy choices for children – e.g., children having energy, experiencing better mental health, increased alertness in school leading to better grades.
3. Be aware of and sensitive to terms that parents may use to describe child weight.
4. Focus on how good nutrition and increased physical activity in childhood are related to less likelihood of getting diseases such as diabetes and heart disease in adulthood.

Recommendations for Research

The other significant finding was that the fathers' roles varied tremendously based on their family structure. Brad, the only single father in the study, was also the only one who discussed difficulty in providing for his children's nutritional needs (based on time-constraints) and in supporting their participation in organized sports (based on cost of participation). Studies have concluded that children in single-parent families are more likely to be overweight or obese than children in two-parent families (Sado & Bayer, 2004). In terms of single fathers, between 1970 and 2003, single-father families increased from less than half a million to 2 million (1% to 6%) (US Census Bureau, 2003). This increase in single-father households is only part of the picture, as it does not include fathers who do not report being head of a single parent household. Put another way, this does not include fathers who are single-parents, living away from their child.

More research specifically focusing on single father families in terms of CHO is needed in order to understand and examine potential avenues for prevention within this group.

In terms of father involvement for non-residential fathers, research supports that Black, non-Hispanic men who are not with their children's mother are more likely to have maintained contact with their child, to have seen their child in the past month, and to have seen their child a greater number of days than men of other races (Edin, Tach, & Mincy, 2009; Mincy & Pouncy, 2007). This is consistent with research suggesting that Black fathers are less constrained by the "package deal" linking partner and parent roles (Edin et al., 2009) and may therefore be more likely to participate in their children's lives regardless of their relationship with the child's mother. This suggests that fathers are involved with their children at some level. Based on the fathers in this study, parental visits occurred at least every other weekend. Additionally, the fathers appeared to be very knowledgeable with regards to their children's lifestyles and habits during the time that they are away from them. When speaking about their children, the two non-residential fathers expressed as much concern with their child's health as did the other two fathers in the study.

For these reasons, it is imperative that fathers be involved in research aimed at CHO prevention. In order to involve fathers in a meaningful way in research and intervention strategies, it is recommended that researchers:

1. Be aware of the different structures that comprise families such as custodial fathers, single fathers, residential and non-residential fathers.

2. Make efforts to include varying family structures in research studies to capture the data from diverse participants.
3. Allow fathers to describe what their roles are in the family without introducing traditional gender-bias roles (e.g., use open-ended questions to capture fathers own definitions and understanding of their roles).
4. Ask questions to ascertain how both parents work together and what practices help to promote cooperation.

Conclusion

In conclusion, a review of the literature on parental perception of CHO reveals that fathers have been largely excluded from research in this area. Although a paucity of research is available on fathers' perception, a few studies examining fathers' roles in facilitating and promoting optimal child health reveal their positive role in terms of children's activity levels and BMI. Results of the current study suggest that fathers are well aware of CHO, its causes and potential solutions in terms of nutrition, physical activity and decreased sedentary activities. However, fathers' perception of methods used to derive child weight categories (specifically BMI), as well as perception of what constitutes acceptable child weight, may affect their acceptance of messages intended to promote participation in child weight management practices. With the exception of children who are under a doctor's care for weight management, recommendations for optimal child health practices are largely the same. Therefore, the inclusion of weight status as a cue to action is not necessary. The discussion of child weight status should be replaced with discourse focusing on optimal child health. This change in discourse

allows for inclusion of all parents in promoting child health, without inadvertently communicating judgment of the child or the parent. Further, in order to foster lifestyle changes aimed at preventing CHO and improving child health, future research must examine fathers' roles in the family as an integral component of family dynamics.

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APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

Please answer the following questions. Write your response in the appropriate space for the items below:

How old are you (years)?

_____ Years

What town do you currently live in? _____

What is your current marital status?

_____ Single

_____ Married

_____ Divorced

_____ Separated

_____ Widowed

What is your current work status?

_____ Part-time

_____ Full-time

_____ I do not currently work

_____ Work more than one job

What is your occupation best described as? (check all that apply)

_____ Student

_____ Homemaker

_____ Management (sales/service management, business and financial operations)

_____ Professional (computer & mathematical, architectural, engineering, life sciences, social & behavioral sciences, legal occupations, education, health diagnostics and treatment)

_____ Service (healthcare support, protective service, food preparation, maintenance, personal care).

_____ Sales (retail sales, representatives, travel agents)

_____ Administrative (financial clerks, information/records clerks, office administrative support).

_____ Farming (agricultural workers, fishers, forest/logging and conservation workers)

_____ Construction Trades (carpenters, drywall installers, sheet metal workers)

_____ Installation (electrical/electronic installer & repairs, vehicle mechanics, appliance installation & repairs).

_____ Production (assemblers/fabricators, food processing, printing, plant & system operators)

_____ Transportation (motor vehicle operators, rail & water transportation)

_____ Military/Armed Forces

_____ Not currently employed

_____ Don't know/Not applicable

_____ Other (please specify) _____

Which of the following best describes you? (check all that apply)

VITA

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