# The Process of Mothering an Obese Child

Dissertation

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Submitted in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy in Nursing

March 3, 2015

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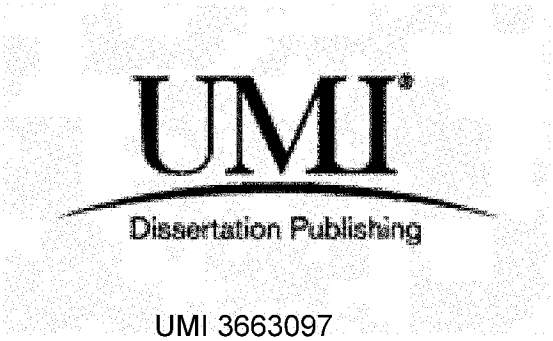





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**Date: March 3, 2015**

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Acknowledgements

I would like to thank my Lord and Savior, Jesus Christ in giving me this privilege to conduct and complete this research.

I would also like to thank Dr. Jane White, the chairperson of the committee for her insight, unwavering commitment and dedication in directing me so I could successfully complete this research, and to my committee members, Dr. Patricia Donohue-Porter and Dr. Andrea McCrink for their encouragement and support throughout this process.

I would also like to extend my gratitude to all the individuals who assisted me with the various aspects of this research. A special thanks to Dr. Elaine Muller, my academic mentor who guided, supported and directed me in initating and pursuing my doctoral education.

I would like to thank all my family members with heartfelt gratitude for their support and believing in me that this could be possible, and in memorium to my parents, Rupert and Dorothy Bartlett, who laid the foundation for me in my formative years both spiritually, and in my education.

I finally would like to thank all the mothers who amiably gave of themselves and contributed to this area of inquiry. Without your participation this research would not have been possible. I thank and applaud all of you the mothers, as you seek and pursue health for your children.

*Because out from Him and through Him and to Him are all things. To Him be the glory forever. Amen.*

*Rom.11:36*

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## Abstract

Maternal influence has been identified as a crucial factor in identifying and predicting if a child will be obese and can influence children's future comorbidities if they are obese. There is a dearth of research focused literature on the mothers' perspectives in caring for a child with obesity. The purpose of this grounded theory study (Glaser & Strauss (1967) was to identify a process of mothering an obese child. Data were collected through semi-structured interviews with 12 mothers. The transcripts of the interviews were coded, and coded data were then categorized and further analyzed to conceptualize a process. Three final phases, *realizing, limiting and eliminating, and doing something*, each with subcategories, explained the process of mothering an obese child. *Limiting and Eliminating* emerged as the core variable for this process. That is, mothers primarily used limiting and eliminating foods for their child, a strategy well known today to be ineffective for weight loss in children. Moreover, the mothers were not aware of many of the contemporary strategies for obesity intervention for children. This study's findings will inform health care professionals who work in both prevention and intervention settings with mothers of obese children and those at risk for developing obesity.

# CHAPTER I

# INTRODUCTION

## Background

Since Nightingale's time, an important area of nursing's focus has been health and the many family and environmental factors that affect it. The role of the mother in her child's health has received significant attention in the literature. Nurse researchers have contributed to an understanding of mothering and health/illness in such studies as: caring for children with asthma (MacDonald, 1996); complex medical problems, (Glasscock, 2000; Lin, Mu, & Lee 2008; Meehan, 2002); and emotional problems such as depression and trauma (Draucker, 2005; Meadows-Oliver, 2003; Shostrom, 2008). Today, obesity is one of the most prevalent childhood problems in the United States (Ogden, Carroll, Kit, & Flegal, 2014; Pulgaron, 2013). However, little is known about how mothers care for a child who is obese.

There is significant literature on aspects of obesity such as parental feeding practices (Disantis, Hodges, Johnson, & Fisher, 2011). However current research findings demonstrate that parental feeding practices are only one aspect of prevention and intervention in childhood obesity (Benton, 2004; Birch & Ventura. 2009; Burgess- Champoux, Larson, Neumark-Sztainer, Hannan, & Story, 2009; Lindsay, Sussner, Kim, & Gortmaker, 2006; Ramirez, Gallion, Despres, & Adeigbe, 2013; Rhee, 2008). Importantly, the child's many interactions with the environment often influenced by a mother's role and attitudes, cultural factors, and economics can have a significant effect on a child's weight (Brownell, Schwartz, Puhl, Henderson, & Harris, 2009;

Pena, Dixon, & Taveras, 2012) and his/her reaction to the obesity (Baughcum, Chamberlain, Deeks, Powers, & Whitaker, 2000; Grimmett, Croker, Carnell, & Wardle, 2008. The literature on the scope of childhood obesity and what is known about a mother's influence provide important background information for the present study on the process of mothering an obese child.

**Obesity and Children**

There is currently a worldwide childhood obesity epidemic and, among children and adolescents in the United States continues to worsen. The past thirty years has shown an unprecedented and dramatic increase in childhood obesity in the United States (Ogden et al., 2014; Singh, Kogan, & van Dyck, 2010). For children, this increase in the prevalence of childhood overweight and its resultant comorbidities are associated with significant health and financial burdens that warrant strong and comprehensive prevention efforts and a call to action. This trend suggests that a new generation of Americans will enter adulthood already obese or at risk for obesity. Longitudinal epidemiological surveillance studies in the United States indicate that rates of childhood obesity tripled from 1970 to 2004; this sharp increase was even more pronounced in children 6-11 in age, in which there was a four-fold increase in obesity (Isganaitis & Levitsky, 2008). In the United States childhood obesity affects approximately 12.5 million children and adolescents (Center for Disease Control and Prevention, 2011). Because of this prevalence it is predicted that U.S. life expectancies will decline for the first time since 1900 when data were first collected (Gittelsohn & Kumar, 2007). This life expectancy decrease is projected to be 2-5 years in the 21$^{st}$ century (Isganaitis & Levitsky, 2008). In 2004, 19% of those 6-11 years old and 17% of those 12-19 years old with a body mass index (BMI) for age above the 95$^{th}$ percentile for childhood obesity were linked to a 10 to 30-fold increased risk for adult

obesity. This risk translates to the development of metabolic syndrome, early cardiovascular disease and youth onset of Type 2 diabetes and depression (Isganaitis & Levitsky, 2008).

The epidemic of childhood obesity has many multiple, complex, and interwoven associations such as cultural, economic, and genetic ones. As well, widespread and profound societal changes during the last several decades have contributed to this problem. For example, family life has changed over the past decades with trends towards eating meals outside of the home and with a rise in consumption of fast foods, child- rearing practices have affected childhood patterns of diet. Also, for children today, a decrease in physical activity has resulted from a greater access to television and other sedentary activities such as playing video games. (Burgess-Champoux, Larson, Neumark-Sztainer, Hannon, & Story, 2009; Ebbeling, Pawlak, & Ludwig, 2002; Morrison, Power, Nicklas, & Hughes, 2013) .

**Maternal Influence on Obesity**

To address the epidemic of childhood obesity, health professionals and researchers are examining the role of the family (Benton, 2008; Davison, Jurkowski, Li, Kranz, & Lawson, 2013; Marvicsin & Danford, 2013; Skeleton, Buehler, Irby & Grzywacz, 2012; West, Sanders, Cleghorn, & Davies, 2010). Parental influence has been identified as an important factor predicting if a child will become obese, and develop possible future co-morbidities if the child is already obese (Benton, 2004; Birch & Ventura, 2009; Faith et al., 2012; Fassihi, McElhone, Feltbower, & Rudolf, 2012; Hodges, 2003).

Mothers are influential in shaping early eating and physical activity patterns in children (Brodsgard, Wagner, Peitersen, & Poulsen, 2013; Hughes, Sherman, & Whitaker, 2010). In many cases, because obesity is considered a chronic condition similar to other chronic conditions, caring for an obese child may include a host of emotional and physical stressors for mothers and these children.

Maternal feeding practices and beliefs are one focus of family research related to childhood obesity (Davis, Young, Davis, & Moll, 2008; Jansen, Mulkens, & Jansen, 2007; McPhie, Skouteris, Daniels, & Jansen, 2014; Thompson, 2010; Vollmer, & Mobley, 2013; Webber, Cooke, Hill, & Wardle, 2010). Maternal beliefs and perceptions play a significant part in childhood obesity because they may shape parental feeding behaviors (Bayles, 2010; Boucher, 2013; Sosa, McKyer, Goodson, & Castillo, 2014; Warschburger & Kroller, 2009). A few research studies have provided some insights regarding maternal perceptions of children's weight. Jain, Sherman, Chamberlin, Carter, Powers, and Whitaker (2001) conducted a study using focus groups to explore mothers' perceived preschool children's weight status and their apparent lack of concern. Some of the mothers' explanations included that they did not accept the health professional's classification of overweight and they distrusted the growth charts. In another study, cross-sectional in design, conducted by Baughcum, Chamberlin, Deeks, Powers, and Whitaker (2000), maternal perceptions of overweight children were explored. In their findings, nearly all the obese mothers regarded themselves as overweight, however the majority of the mothers did not view their overweight children as actually being overweight. This misperception was more common in mothers with less education. In one important qualitative study, Edmunds (2008) using a grounded theory method, examined the social situations and implications for parents who have a child who is overweight or obese. From this study, four themes emerged: reactions of others, learning to cope with their size, their clothes, and the impact of bullying. Noteworthy, mothers reported having to endure the reactions of the child's father and their own mothers as undermining their attempts to promote healthy eating.

Childhood obesity prevention and intervention efforts are unlikely to be successful without a better understanding of how mothers actually experience the process of mothering an obese

child. While some studies exist on mothers' perceptions of their overweight child, the process of mothering is more than perceptions and includes an in-depth exploration of barriers, supports and emotions experienced by the mother. Given the significant scope of the problem, childhood obesity and the importance of this health concern to nurses and other health professionals, coupled with the dearth of studies on the mothering experience in caring for these children, a qualitative study is warranted. Therefore, the purpose of this study was to explore the process of mothering an obese child from the mothers' perspective. Grounded Theory Methodology (GTM) was chosen as the design for this study because its focus is studying processes in naturalistic settings.

**Significance of the Study**

Nursing's role in assisting mothers in their care of children who are both healthy and ill has been well documented and highlighted in published literature. Exploring mothers' experiences concerning caring for their obese child can lead to important prevention and intervention strategies in clinical settings. Nurses working in school health as well as in community settings are instrumental in health education, health promotion and prevention activities that often include mothers. Findings from this study may provide nurses working in many settings the important, but often overlooked, perception of mothers related to obesity prevention and intervention.

The need for research on attitudes and behaviors of mothers related to exercise, eating, and childhood obesity has been identified as an important endeavor (Brodsgaard et al., 2013; Hodges, 2003; Hughes, Sherman, & Whitaker, 2010). Study findings might support the development of specific programs that assist school nurses working with mothers of obese children.

Many researchers, policy makers, and health care professionals have called the childhood obesity epidemic the public health challenge of this time. As advocates for policies that promote the health and well-being of the nation's population, nurses might use this study's findings to add to policy development initiatives for childhood obesity especially those police that affect parental roles and responsibilities. The contribution of parents to school initiatives that are presently underway to prevent and intervene in obesity must also be explored.

Nursing education might use this study's findings by incorporating them into curricula on child health promotion as well as on chronic illness in children, and the important interaction of mothers in health promotion and illness care. A review of the literature has revealed a void in exploring and examining the mothering process with a child who is obese.

# CHAPTER II

## REVIEW OF THE LITERATURE

This chapter reviews the literature on mothering as a role capturing the related theories and relevant research. As is customary when using Grounded Theory Methodology (GTM), the initial literature review does not address specific variables that may be part of the process of mothering an obese child because the study findings emerge from the data collection and analysis, and are therefore not known prior to undertaking the research. Following the findings of the study, which are in the form of a conceptual understanding or of a process of mothering an obese child, a more specific literature review is then undertaken using the specific findings. Then, the emerged process in a discussion of the findings can be compared to the relevant, specific theoretical and research literature on the topic under study. Therefore this chapter presents an overview of the broad topics of mothering and of childhood obesity.

The first section of this chapter includes an overview of the meanings of mothering, and then an historical perspective of mothering is presented, followed by an exploration of the significant literature on mothering in the disciplines of psychology, sociology, anthropology and nursing. Literature on childhood obesity is covered next and the limited published literature on mothering and childhood obesity is then presented. Because there is a lack of reported studies on mothering an obese child, literature on mothering children with disabilities and those with a chronic illness are included in this review. Because obesity is viewed as a chronic condition, these studies'

findings may illuminate a process that could be similar to that of mothering an obese child. Finally, the chapter concludes with a summary of the reviewed literature and a critique of the current state of knowledge on mothering an obese child.

## Mothering and Motherhood

The term mothering is a multidimensional concept and a process that includes social and behavioral aspects (Gardner & Deatrick, 2006). The definitions, understanding and concepts of mothering and motherhood are evolving into a rapidly expanding body of literature in the social sciences and humanities. In the 21st century, mothering and motherhood have generally been explored from two approaches: scholarly work has consisted of theorizing an understanding of mothering and motherhood, and research findings have been reported on aspects of the mothering experience. The focus of mothering has also broadened over time from an earlier focus on the quality of mothering and its effects on a child (Arendell, 2000). As well, the study of motherhood today has been more multidisciplinary with an expanding body of literature from such disciplines as nursing, anthropology, sociology, and psychology. Importantly, disciplines share a common understanding of mothering as focusing on nurturing and caring for children. However, there are various other understandings of mothering specific to theorists and the discipline to which they belong. Nevertheless an historical perspective of mothering captures the important changes in the role of mothers over time.

### Historical Perspectives on Mothering

As early as 1400 B.C. the term mother was used in the Bible. The role of mothering pertained to protecting, instructing, and nurturing and involved personal sacrifice for one's child. Mothers played important functions in the Bible and had specific defining roles and

characteristics as described by five noted examples. The mother of Moses, Jochebed, hid Moses in the bushes by the river when he was just a baby to escape the slaughter of babies by the Egyptians. Mary, the mother of Jesus, was a protector of her son as a babe hiding him from King Herod and demonstrating great personal sacrifice. Hannah, the mother of Samuel, brought her child, when he was just weaned as a small boy, to the temple and dedicated him to the work of the priesthood. Hannah showed the personal sacrifice of a mother in dedicating Samuel to the priesthood as a young boy when she left him with Eli the priest (I Samuel 1:22-28 Recovery Version). Both Eunice, the mother of Timothy and his grandmother Lois in the New Testament were teachers of Timothy, instructing him in the knowledge of the scriptures (II Timothy 1:5). These mothers were viewed as important having a tremendous influence on their children.

In ancient Egypt and Greece, many mothers relinquished care of their babies to other women who served as wet nurses. Mothers spent very little time interacting with their children because of other responsibilities such as weaving cloth, growing and preparing food, or caring for children of higher status women.

Society has viewed and shifted its perceptions of motherhood throughout the centuries and these perceptions in the literature have been intrinsically linked to society's view and perception of children. Throughout the middle-ages and by the end of the 16th century however, writers captured a general indifference toward mothers and children which may have contributed to the high mortality rate for children. Motherhood was usually disregarded as a role, and at times actually denigrated (Bloch, 1978). Children were not considered an important part of society and as long as society perceived children as being without value, motherhood was disregarded.

. History revealed that the further back one investigates, the level of child care that was provided by mothers was considered of poor quality. Children were likely to be abandoned,

beaten by their parents, and experience tremendous horrors (DeMause, 1974). However there were notable exceptions. In some ancient texts and writings of notable Romans, the value of the nurturing role of mothers was advocated. Orbasius wrote on the benefits of breast milk thereby implying the important work and value of a mother (Lyman, 1974). Some scholars claimed that the rise of Christianity was one major influence on some enlightened perception of the relationship of children and mothers. This was related to the belief that all persons had souls (Lyman, 1974). One highly and influential Franciscan, Bartholomaeus Anglicu, in his writings on human development, commended and praised the nursing of one's own children on scientific and emotional grounds (Sommerfield, 1989).

The 17th century was a turning point in history with an increased importance on the nuclear family unit and the perception of the mother's role. John Locke was influential in this change and as a physician as well as a philosopher and wrote a treatise on the proper care and nurturing of children. Parents were called upon to direct their attention to their children's development. Whereas the mothers were advised to take care of the affections, the fathers were to care for their children's educational development (Sommerfield, 1989). There was a movement at this time towards breast-feeding triggered by the high infant mortality rate at the time which subsequently influenced the view of motherhood as an appreciative position (Sommerfield, 1989).

Until the 19th century, with a few notable exceptions such as the rise of Christianity and the writings of some Franciscan monks, mothering and children received little attention from the scientific community. However, Charles Darwin, in assigning scientific value to the study of childhood, brought a new dimension to the nurturing role of the family, particularly the mother who was viewed as providing emotional and social stability (Kessen, 1965). Expensive hardback manuals on child rearing were popular among the literate classes in the 18th century. In

the early 20th century, the idea of motherhood as influenced by science was taking hold. A period in which mothers would seek out information and guidance on motherhood had permeated Western culture and influenced maternal practices by the turn of the 20th century. Literate mothers, especially those of the middle and upper-classes, embraced the medical direction of child care.

The study of motherhood from a scientific perspective became the harbinger of twentieth – century motherhood. For example, during this period the influence of behaviorism and the behaviorist theory of John Watson emphasized rigid rules for maternal conduct. Watsonian concepts implicitly encouraged the institution of motherhood (Margolis, 1984). In addition to exploring mothering historically, the literature reviewed highlighted influences on the study of mothering within various disciplines.

**Disciplines' Approach and Understanding of Mothering**

Even though the word mother is one of the oldest, the term motherhood is relatively new. The Oxford English Dictionary contains no reference to it earlier than 1597 (Daly, 1983). However, the process of mothering and motherhood has been researched, analyzed and described in many ways over the past few decades. Some scholars have stated that mothers share by definition a set of activities, or engage in maternal practices such as the nurturing, protecting and training of their children. An earlier focus on the study of mothering and motherhood was on the quality of mothering whereas today most of the focus on mothering is on the mother's experiences, understandings, and maternal work or activities. Moreover, today the focus has been multidisciplinary with an expanding body of literature in many disciplines. In Western society, mothering theories from the disciplines of psychology, anthropology, sociology and nursing have evolved. Earlier theorists in the social sciences and humanities usually focused on the quality of mothering and the effects of this on the child. Today, feminist, sociological and

social psychological theories are more centered around social constructions of motherhood, the functions motherhood serves in society, and its impact on women's social position (Arendell, 2000). As household demographics, economics, and parental roles have changed, the process of examining and analyzing motherhood has evolved (Renaud, 2007).

**Psychology.** In the discipline of psychology the word mothering refers to the daily management of children's lives and the daily care provided for them. Incorporated within the term mothering in psychology is the intensity and emotional closeness of the *idealized* mother-child relationship as well as notions of mothers as responsible for the fostering of "good" child development (Phoenix & Woollett, 1991). Bowlby, Mahler, and Winnicott are well known in psychology for their theories that have advanced an understanding of mothering.

The psychoanalytic study of mothering was influenced by John Bowlby and his seminal work on *attachment theory* (Bowlby, 1952). Bowlby, a British psychoanalyst whose views were considered within Freud's school of thought, argued that a selective attachment to the mother provides emotional security and creates the basis for later social relationships. Attachment behavior is defined as seeking and maintaining proximity to another individual. Bowlby stated that no form of behavior is accompanied by a stronger feeling than attachment behavior. Bowlby emphasized that in order for a child to form an attachment to the mother figure, both the desirability of continuity in the relationship between the child and his mother and the importance of the quantity of the interaction are sufficient (Bowlby, 1952).

Bowlby's hypotheses were based on his observations of the mental health of homeless and orphaned children during World War II. Bowlby directed his focus on the children who were thought to be lacking a mother's love. Bowlby's theory was initially developed through observations of how young children respond to the temporary loss of their mother. One

hypothesis was that actual physical separation from the mother in early childhood, to the extent that it involves deprivation of a relationship of dependence with another-figure, will have an adverse effect on personality development (Bowlby, 1952). Mother-child separation has also been considered as maternal deprivation. In maternal deprivation it has been hypothesized that a child's development may be harmed if through separation the child has been deprived of the natural mother's love.

Developmental theory in psychology includes Margaret Mahler's theory of *separation/individuation* (Mahler, 1971). Mahler's view of normal development and her separation individuation theory drew heavily on observations of mothers with their infants and toddlers in nursery settings (Crain, 2000). Separation-individuation refers to the developmental sequence through which human infants grow and develop psychologically. These psychological adjustments of the child occur between 4 -36 months of age. During the separation–individuation period, the child develops a sense of self and a permanent sense of significant others, known as object constancy. Separation signifies differentiation, distancing, boundary formation and disengagement from the mother. Individuation denotes evolution of the intra-psychic autonomy, psychic structure development, and personality characteristics.

Mahler (1971) divided the separation-individuation process into four sub-phases: differentiation, practicing, rapproachment, and object constancy. Mahler stressed that if the relationship between mother and child is inconsistent and the mother's behavior in this separation-individuation stage of the child's development is insensitive and "un-attuned" to the child's needs, dysfunction in and psychopathology of the child can occur. Mahler recognized that an infant needs a responsive, comforting mother. She emphasized that nurturing mothering is a necessity for an infant's psychological development.

Developmental psychology also gained an understanding of mothering with Winnicott's theory of the "*good enough mother*" (Winnicott, 1960). He focused on the processes of normal mothering and placed mothering into stages. Winnicott (1990) describes three roles of mothers a) monitoring-surveillance functions, b) expectant nurturing, and c) responsive care-giving. Winnicott's theory of "good enough mothering" focuses on the mother's responses to the child's ego development and the early mother-child relationship. Crucial characteristics for a "good enough mother" include sensitivity, intelligence, emotional maturity and devotion. Devotion on the part of the mother implies a whole-hearted commitment and deep emotional attachment which is absolutely necessary for a child's ego development. According to Winnicott, the "good enough mother" intuitively recognizes the important role the mother plays in the ego development of the child. Bowlby, Mahler and Winnicott from the discipline of psychology have contributed significantly to the understanding of the mother-child relationship as it affects a child's emotional development. Well-known theorists in sociology have also contributed to an understanding of mothering.

**Sociology.** In the 1950's, the earliest significant study of mothering in sociology focused on gender roles within Parson's (1956) *gender role theory.* According to Parsons, the function of the family is to teach children behaviors associated with their gender, therefore men and women perform a set of distinct and expected gender roles. Women were to care for the children and take on a more expressive role. The role of the mother and the behaviors involved in that gender role were thought to meet the needs in the child's development. Sociologists argue that to mother is not so much a part of a woman's natural biological inheritance, but rather is a learned role along with the skills of motherhood. One of the most significant theories from sociology is that of *intensive mothering.*

Sharon Hays (1996), a sociologist, researched the social construction of mothering and coined the term *intensive mothering*. Intensive mothering is based on the social construction of an "ideal" family and is somewhat rooted in psychology. Hays described this ideology claiming that mothers are the ideal preferred caretakers of their children, and intensive mothering is expert guided, emotionally absorbing, and labor intensive. Motherhood in this ideology is devoted to the care of others, is self-sacrificing, and is not subject to a woman's own interests and needs. This model of intensive mothering has set standards of good motherhood. Rullo and Musatti (2005) conducted a quantitative study on mothering young children in Italy and used the term *intensive mothering* to describe what mothers were experiencing while caring for their children. This study focused on mothers with children in the second and third year of life. The authors examined the supportive networks for these mothers. Their findings demonstrated that some of the mothers experienced a certain amount of stress related to the role of intensive mothering.

Intensive mothering is said to have its roots in earlier psychological theories (Medina & Magnuson, 2009). Psychologists believe that the intensive mothering model is related to attachment theories such as those of Bowlby, the psychoanalytic theories of Freud and Erikson, and the cognitive theory of Piaget. According to Hays (1996), the contemporary physicians of the 20th century such as Spock, Brazelton, and Leach supported and extended the intensive mothering theory. Attachment theorists and attachment parenting techniques, according to Douglas and Michaels (2004), contain aspects that have been connected with intensive mothering ideology. Attachment researchers have documented the importance of the mothers' emotional availability and being completely attuned to their infant's needs. However some scholars debate whether intensive ideology is more demanding than attachment theory proscribes.

Researchers focusing on attachment theory agree that infants need to form a secure attachment to a primary caregiver in life. However there is little empirical evidence to support that the primary caregiver must be the mother who has sacrificed her needs for her child as is the case in intensive mothering (Medina & Magnuson, 2009). What is implied in the meaning of intensive mothering, according to Hays, is that women who fall short of this ideal do not fit the social construction of good mothers. Hays maintained that this intensive mothering ideal has led to the current problem of "mommy wars" reflecting cultural contradictions pitting traditional stay-at-home mothers against "working moms" (Hays, 1996 p. 140). She states that this construct of *intensive mothering* is the normative standard against which all mothering practices in U.S. society are evaluated. Mothering in other cultures however may differ from mothering in Western Societies (Mead, 1954).

**Anthropology.** In the discipline of anthropology, Margaret Mead is one of the most significant writers on motherhood. She conducted studies with samples from 186 contemporary cultures in which in only 20% of the "cases" were the individual mothers the principal caretakers of children. In her observations in many of these cultures, the rearing of small children was shared among women and older children. Thus she concluded that the establishment of permanent nurturing ties between a woman and the child she bears is dependent upon cultural patterning (Mead, 1954). Mead stressed that there was *no* empirical anthropological evidence to support the idea that a young child should never be separated from his/her mother or mother-surrogate and no evidence that all separation is damaging and that a long separation inevitably causes irreversible damage. She claimed that cross cultural studies suggested that the child adjusts best in the care of warm, friendly people; this practice has been called multiple mothering. Mead stressed that clinical and anthropological studies support the idea that strong

attachments to single individuals in childhood tend to be followed by a limited number of intense, exclusive relationships in adult life (Mead, 1954). As a discipline, nursing has also contributed theoretically to our understanding of mothering.

**Nursing.** Theories in nursing on mothering focus on immediate mothering and mothering adaptations and transitions. Well-known theorists in nursing who describe the process of mothering and motherhood include Rubin's (1967, 1984) *maternal role attainment* theory (MRA), and Mercer's (1985, 2004) theory of *becoming a mother* (BAM). Rubin stated that mothering is a process in which the mother achieves competence in the role and integrates the mother behaviors into her established role so that she is comfortable with her identity as a mother (Rubin, 1967). The mother achieves competence in the role and integrates mothering behaviors into her role. Three constructs of MRA include maternal identity, perceived role attainment, and demonstrated role attainment (Rubin, 1967). Rubin's theory on mothering encourages nurses to look beyond the physiological and pathological aspects of childbearing to the process of becoming a mother. During Rubin's time this notion was groundbreaking. Prior to Rubin's work the focus on nursing interventions were mostly on physiological adaptations for mothers. Rubin described a process of maternal development associated with experiences in pregnancy, labor, delivery, and the postpartum period and focused on adaptation of tasks for success.

Mercer, a student of Rubin, advanced Rubin's work on maternal role attainment based on her own observations and a review of qualitative research studies such as those of Koniak-Griffin (1993), McBride and Shore (2001), and Nelson (2003). She concluded that becoming a mother was not a static situation as Rubin's MRA implied, but rather it was a fluctuating process that should capture the process of motherhood from a life-span approach. She saw mothering as a process that involved a passage through a series of developmental changes which can reshape

personal identity, attitude, emotion, and self-concept (Mercer, 2004). The process of BAM, Mercer argued, should be studied in differing situations and transitions such as becoming a mother of a school-aged child, an adolescent, or becoming a grandmother. She claimed that as a life-span approach, studies should address how the process differs as a woman expands her maternal self. The belief that mothering is different depending on contexts has also been one focus of the feminist viewpoint.

**Feminism.** Since the 1970's, feminist scholarship on mothering and motherhood has been increasingly attentive to the diversity of mothering circumstances (Bell, 2004). Feminists believe that there is diversity in mothering in women's experiences. That is, diversity in mothering experiences includes early motherhood vs. late motherhood, two-parent households vs. single parent households, working mothers vs. stay-at-home moms, biological mothers *vs.* adopted mothers, mothers in different cultures, and mothers from various socio-economic strata. This attention to diverse mothering experiences is reflected in the development of knowledge about the social locations and structural contexts from which women mother, multiple identities and meanings of mothering, and the experiences and activities of mothers (Bell, 2004).

Feminist scholars have presented differing aspects of motherhood. While some feminists have examined how motherhood functions as an oppressive aspect of women's lives, other feminists have studied motherhood as an important source of power for women. Chodorow (1989) stated that mothering is a highly emotional and profound mental process and claimed that motherhood is socially entwined with and reinforces women's gender identity.

Feminist writers such as Adrienne Rich made important distinctions between the patriarchal institution of motherhood and women's actual experiences of mothering. Adrienne Rich (1976), in her landmark book, *Of Women Born,* distinguished between the institution of motherhood, that

which is proscribed, and the actual experiences of mothering. Many feminist scholars considered this distinction to be a significant and influential work in that it offered a critique of how motherhood could function as oppressive. Feminism holds that mothering experiences are not the same for all women but are largely shaped by social expectations, norms and dominant assumptions. According to some feminist writers, examinations of motherhood as socially constructed may tell us more about the lives of mothers than would a focus on natural or innate motherhood. The seminal work of Sara Ruddick (1989) demonstrating an academic interest in understanding the maternal experience developed the concept of *maternal thinking*. She described the tasks of mothering as highlighting the cognitive work that mothers do and think.

Another idea in feminism, viewed from a critical social theory perspective, is that of *mother blaming*. Mother blaming involves holding mothers responsible because of their actions or lack of actions for any pathology or psychopathology of their child. Authors have argued that value judgments made by society and specifically health care providers have contributed to the perpetuation of mother blaming (Jackson, Wilkes, & McDonald, 2007). Mother-blaming may come from family members, spouses, health care professionals and/or society in general. A culture of pointing fingers is at the root of mother blaming. Mother-blaming views mothers as the primary target of criticism and blame regardless of the mothers' choices and constraints (Koniak-Griffin, Logsdon, Hines-Martin & Turner, 2006). This relegation of blame to mothers for "socially unfit" children has contributed to blaming mothers for everything including crime, delinquency, and mental illness in children (Blum, 2007). For example, one study's findings linked mothers going to work and being employed as a reason for childhood obesity (Anderson, Butcher, & Levine, 2003).

**Summary of Mothering and Motherhood**

In summary, mothering and the term mother has existed for centuries. History has revealed that in general being a mother was not an appreciative position in ancient times, however there was a change in the value of mothers with the advent of scientific motherhood in the late 19th century.

In the disciplines of psychology, sociology, anthropology, and nursing there are common understandings in that mothering is viewed as a role that involves nurturing and caretaking responsibilities. In the 1950s, theorists in psychology focused on the maternal instinct viewpoint. The quality of mothering and the effects on the child were explored within the development of theories such as attachment and good enough mothering.

In sociology, motherhood was, and is, predominantly viewed as a learned gender role. Some sociologists now claim the ideology of intensive mothering should be the present day focus of inquiry on mothering. Margaret Mead contributed to the view that cultures differ with respect to the importance they place on a single close mothering relationship for the development of healthy children. In nursing, through the work of Rubin and Mercer, mothering involves roles and transitions and a view of mothering as a life span approach.

Feminism and critical social theory view mothering and motherhood as encompassing a magnitude of experiences and activities and focuses on the social locations and structural context of mothering as important. Feminists have also addressed mothers as victims of blame. Nevertheless, given the extensive body of work on mothering, little of this work has addressed the mothering role as it relates to childhood obesity.

## Childhood Obesity

Childhood obesity is a major public health problem (Ogden et al., 2014) and scientists have called it the fifth phase of the epidemiologic transition: the age of obesity and inactivity (Gaziano, 2010). According to epidemiological data from the National Health and Nutritional Examination Survey (NHNES) from 2007-2008, almost 32% of school-aged children and adolescents in the US are at or above the 85$^{th}$ percentile of body mass index (BMI) for age (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). This may translate into billions of dollars in related health care costs because early obesity is a strong predictor of risk factors leading to cardiovascular disease and Type II Diabetes as well as other chronic diseases.

### The Economics of Obesity

Widespread childhood obesity not only has devastating human costs, but has growing economic costs that may threaten to override the nation's health care budget. It is estimated that the total U.S. health care spending as a result of overweight and obesity in 2008 was approximately $105.9 billion; half of this sum was financed by Medicare and Medicaid (McKinnon et al., 2009). Excess weight has been associated with greater medical expenditures for children and adolescents (Finkelstein & Trogdon, 2008). In examining trends of obesity associated diseases in children ages 6-17 years and the related economic costs from 1979-1999, Wang and Dietz (2002) found that obesity-associated diseases and significant growth in economic costs increased dramatically during this twenty year period. Children with a hospital diagnosis of diabetes nearly doubled (1.43% to 2.35%), gallbladder diseases tripled (0.36%-1.07%) and asthma and some mental disorders were also common principal diagnoses. Wang and Dietz's study found that for obesity related conditions there was more than a threefold increase in hospital charges from $35 million to $127 million over this twenty year period.

Whereas Wang and Dietz examined hospital-related costs, Trasande and Chatterjee (2009) examined the influence of increased expenditures with outpatient/emergency room visits and /or prescription drug expenditures during the period 2002-2005 that were the result of childhood obesity. Significant increased utilization was noted for emergency room visits, outpatient visits and prescription drug use. Compared with costs for obesity-associated hospitalizations, which were $237.6 million in 2005, increased prescription drugs, emergency room visits and outpatient visits totaled $14.1 billion. These analyses confirmed that childhood obesity contributes to increased health-care utilization and health care expenditures and therefore causes an economic burden on the nation.

**Childhood Obesity and Its Impact on Health**

The consequences of childhood obesity and its impact on health are extensive and include both medical and psychosocial comorbidities. The physical health related consequences are far-reaching including high blood pressure, high cholesterol, metabolic syndrome, type 2 diabetes, orthopedic problems, sleep apnea, asthma, and fatty liver disease. The psychosocial consequences include a risk for problems related to body image, self-esteem, social isolation, discrimination and depression (Asthana, 2012; Kalra, Sousa, Sonavane, & Shah, 2012; Latner & Stunkard, 2003). Moreover, researchers have concluded that childhood obesity has significant short-term and long-term adverse medical and psychosocial effects extending into adulthood (Han, Lawlor, & Kimm, 2010; Pulgaron, 2013).

The literature is replete with research on the causes and strategies to prevent and treat childhood obesity. In response to the burgeoning childhood obesity epidemic, the Institute of Medicine (IOM, 2005) released a report that outlines a prevention-focused action plan to decrease the prevalence of obesity in children and youth in the United States. This report

includes goals for preventing obesity in children and lists a set of related recommendations for government agencies, industry, media, community organizations, parents and families, health care professionals and schools. There is an extensive and growing body of evidence arguing for the implementation of interventions in the community and other environmental settings (Basset & Perl, 2004; Brownell, Schwartz, Puhl, Henderson, & Harris, 2009; Budd & Hayman, 2006; Davison & Birch, 2001; Dietz & Robinson, 2008 ; Freiden, Dietz, & Collins, 2010; Gittelsohn & Kumar, 2007; Isganaitis & Levistsky, 2008; Peterson & Fox, 2007; Rosas & Stafford, 2012; Segal & Gadola, 2008). While many approaches have been proposed to address child and adolescent obesity, there is little agreement about how to establish priorities among these approaches (Brownell, Schwartz, Puhl, Henderson, & Harris. 2009). To reverse the obesity epidemic, a much better understanding of its basic causes and of the effectiveness of interventions to prevent and treat it is needed. Moreover, the problem of obesity in children is multi-factorial and these factors have contributed to the rise in childhood obesity and at the same time have contributed to a difficulty in identifying exact effective intervention strategies. These factors include: change in dietary habits, availability of high-calorie nutrient-poor foods, increased portion sizes, frequent ingestion of fast-food, increased time spent watching television or work at a computer, and a lack of physical activity at school and at home (CDC, 2011; Rhee, 2008; Shepherd, 2009). The most effective recent strategies to combat childhood obesity have focused on lifestyle changes which encompass a number of specific factors.

**Prevention and Lifestyle Interventions for Childhood Obesity**

There has been a proliferation of studies addressing the etiology of childhood obesity, prevention and treatment. There have also been a number of intervention studies conducted with schools, families, and there are a number of studies focused on the community. Reviews of

interventions to prevent obesity in children have demonstrated that the majority of prevention programs for childhood obesity in the United States have been conducted in schools with school-aged children and adolescents (Birch & Ventura, 2009). By setting exemplary nutrition and physical activity standards, schools are believed to be an important place for obesity prevention and can be instrumental in supporting parents in their efforts to raise healthy children (Brownell et al., 2009). School-based interventions are popular and there are benefits to the school environment as an important context. Controlled studies of school-based prevention programs are also important because they indicate whether reversing the trend in the prevalence of childhood obesity is possible and suggest directions that policy makers may take (Coleman, Shordon, Caparosa, Pomichowski, & Dzewaltowski, 2012; Jaime & Lock, 2009; Rhee, 2008; Story, Nanney, & Schwartz, 2009). However, according to Coleman et al., (2012) and Birch and Ventura (2009), school-based interventions have had little success; only about half of these interventions produce any significant change in eating behavior, physical activity or weight status. Nevertheless, even with minimal success, the evidence today suggests that lifestyle interventions such as those targeted at diet and exercise in schools may be more promising than other interventions.

A systematic review of interventions for preventing obesity in children was published in the Cochrane Database of Systematic Reviews (www:/Cochrane.com; Summerbell, Waters, Edmunds, Kelly, Brown, & Campbell, 2005). This review examined twenty-two quantitative studies. Nineteen of these were school/pre-school based interventions, one was a community-based intervention targeting low-income families, and two were family-based interventions. The duration of the studies ranged from 12 weeks to three years; most lasted less than a year. The purpose of the review was to assess the effectiveness of interventions designed to prevent obesity

in childhood through diet, physical activity and/or lifestyle and social support. The summary of the evidence suggests that many diet and exercise interventions to prevent obesity in children are not effective in preventing weight gain, however, they can be effective in promoting a healthy diet and increased physical activity levels. Noteworthy in this review was the finding that the interventions identified rarely considered the impact of parents and families (Summerbell et al., 2005). The authors suggested that in future research particular attention should be given to the use of qualitative methods that will inform the design of interventions to build the evidence base for the most cost- effective and health- promoting strategies.

Other reports on studies on lifestyle intervention have also been analyzed. A meta-analysis of randomized controlled trials (RCT) was conducted by Wilfley et al., (2007) examining lifestyle interventions in the treatment of childhood obesity. Each study reviewed was a RCT of lifestyle interventions focused on weight-loss or weight-control for youth aged 19 or younger. The primary aim of this meta-analysis was to evaluate the efficacy of lifestyle interventions in the treatment of childhood obesity by comparing lifestyle interventions to wait-list/no-treatment control groups, or to information/education-only control groups. Life-style interventions were defined as active treatment involving any combination of diet, physical activity, and/or behavioral strategies. Fourteen studies were extracted from an initial 1,456 journal articles that were included in this meta-analysis. One conclusion of the meta-analysis was that lifestyle interventions produced significant treatment effects when compared to no-treatment/ wait-list control groups. The mean effect size for the RCT with life-style treatment vs. no-treatment /wait-list control groups was 0.75 (CI 95% 0.52-0.98). The effects of the interventions were measured both immediately following treatment and at follow-up points. However, there was a slight decline in the magnitude of the effects over time, mean effect size 0.60, (CI 95% 0.27-

0.94). This evidence suggests that lifestyle interventions for the treatment of pediatric obesity are efficacious at least immediately following a trial, or when measured a short time after a trial. For the RCT's that used percent overweight as the outcome measure, there was an 8.2-8.9 % decrease in percent overweight for the treatment groups. Without treatment, there was an increase of 2.1% to 2.7% in overweight at the same two points measured for the intervention group, that is, immediately following the intervention, and at follow-up times. These interventions involved school settings. Noteworthy, parents, especially mothers, who would have a significant role in their child's weight, were not included in the interventions, even though mothers have been considered important to any childhood obesity intervention program.

**Mothering and Childhood Obesity**

Many factors are considered to contribute to the increase in childhood obesity. However the literature is very limited with respect to examining parental or maternal experiences with childhood obesity. Parental beliefs and perceptions play a significant role in childhood obesity because they shape parental feeding decisions and behaviors (Boucher, 2013; Jansen, Mulkens, & Jansen, 2007). Goodell, Pierce, Bravo and Ferris (2008) examined low socioeconomic minority parents' perceptions of their children's overweight during early childhood. Focus groups were utilized to obtain their perspectives. In this study, some of the participants expressed disagreement with the doctor's evaluation and diagnosis of obesity. They specifically disagreed with standardized growth charts used by their physicians because they believed the charts did not account for the uniqueness of their child.

Other studies have provided some insight regarding maternal perceptions of children's weight. A study conducted by Jain et al., (2001) used focus groups to explore how lower-

income African-American mothers perceived obesity in their preschool children and the reasons they did not seem to be concerned. The mothers' explanations for their children's developing weight and barriers to effective weight management were also investigated. Mothers in this study, similar to findings in the Goodell et al. (2008) study, voiced not accepting the health professional's classification of overweight and they also said that they distrusted the growth charts. Mothers believed inactivity resulted from obesity (rather than vice versa) and were more concerned about resulting teasing and low self-esteem. In another study described earlier, a grounded theory method was used by Edmunds (2008) who explored social situations and implications for parents who have a child who is obese. No emerging theory was described in this study; however the researcher identified four themes: reactions of others, learning to cope with their size, clothes, and the impact of bullying. In addition, mothers reported having to endure the reactions of the child's father and their own mothers and viewed these as undermining their attempts to promote healthy eating. The undermining was noted to have the potential to create conflict in the families.

To date, only one study has been reported that was designed specifically to capture the process of mothering a child who is obese. A qualitative study identified by the researchers as a narrative based qualitative approach was conducted by Jackson, Wilkes and McDonald (2007). Eleven mothers participated in this study. The themes the researchers identified from the mothers' interviews included feeling judged and blamed, experiencing frustration and uncertainty, being a reluctant role-model, and despairing for the future. In summary, mothering an obese child has not been well studied, the need for research into the attitudes and behaviors of mothers who have overweight children has been identified as an important area for research (Barroso, Roncancio, Hinojosa, & Reifsnider, 2012; Brodsgaard et al., 2013; Hodges, 2003). An

area in the literature that may illuminate experiences of mothering an obese child is the related topic in the literature of the experience of mothers with children wo have emotional or physical "challenges" and/or disabilities and those with chronic illnesses.

**Mothering and Disabilities in Children**

An increasingly important academic inquiry has been the knowledge development of mothers who have children who are considered to be "abnormal" according to society. While there are many studies reported, significant studies that were qualitative in methodology were examined. Mothering a child with a disability is a different experience from mothering a child without a disability. The mother has to readjust her identity as a mother when a disability occurs. The majority of the research studies indicate that it is the mother who assumes the greater bulk of the responsibility for her disabled child. The mothers of children with disabilities often report that their needs and perspectives have been inadequately addressed. Moreover, some researchers and clinicians argue that the process of mothering a child with a disability cannot be studied best with quantitative approach. According to Reva Rubin (1984), when a woman has a child with a disability, the mother suffers from a sense of what she labeled as "uniqueness." If the type of disability has never been experienced in her family, the mother then seeks out others who have children with a similar disability. The mother's objective is to gain a sense of control, reestablish order, learn what to expect, and find a model for how to be the mother of a child with a disability.

Several studies on mothering with children with different types of disabilities have been reported. Guerriere and McKeever (1997) conducted a qualitative study examining the experience of mothering children who had survived brain injuries. Seven mothers with children

aged 3 to 13 described their relationships with their children. Five children had hemiparesis, one had ataxia, and one had quadriplegia. All but one child required considerable assistance with activities of daily living. In the study findings, these mothers related that they became mothers of "different children" *after* the injury, as if their children had died and were replaced by "new" or other children. The mothers experienced a profound change in their assumption about life and found themselves redefining their priorities. The authors concluded that findings showed that their experiences led to a closer mother-child relationship than previously experienced. This group of mothers valued the relationships with their children and derived pleasure through the exchange of emotions, words, and gestures.

Mothers of children with neurological disabilities have also been studied. Glasscock (2000) conducted a study of the lived experience of being a mother of a child with cerebral palsy. Even though these mothers reported supportive family relationships, they related significant caregiver stress. The daily care required for their children was perceived as difficult and time- consuming. However all the mothers reported a positive caregiver role in which they enjoyed mothering their children. In another study using hermeneutical methodology, Monsen (1999) described the lived experience of mothers of children with spina bifida. Thirteen mothers were interviewed who had children between the ages of 12 and 18. The dominant theme that emerged for these mothers' experiences was "living worried."

Spalding and McKeever (1998) examined twelve mothers' experiences of feeding children with severe disabilities. The mothers elucidated the activities and the stress concerning the feeding. Prior to the diagnosis of the feeding problem, all of the mothers said they felt responsible for their children not thriving. This perception was reinforced by the mothers' belief that others implicitly or explicitly blamed them. The mothers expressed that they were

monitored and criticized by their husbands, other family members, and health care professionals. Three of the mothers refused to go out of their homes in order to avoid criticism and stares from others. These mothers also emphasized that they felt that their health care providers often failed them.

**Mothering and Chronic Illness in Children**

Because obesity has been viewed as a chronic condition, studies on mothering children with other chronic conditions were reviewed especially qualitative studies. Researchers conducted these studies in order to gain insight into the perspectives of the mothers. Themes that were echoed throughout the studies centered on such mothering concerns as care-giver burden, social support, and economic problems. In a review of research on mothering children with a chronic illness or a disability, Nelson (2002) conducted a 12 study meta-synthesis using investigations that addressed mothering "other-than-normal children." The studies included mothering infants, toddlers, school-age and adult children with physical and mental disorders. Nelson identified four steps common to these mothers in her synthesis of these qualitative studies: a) becoming the mother of a disabled child b) negotiating a new kind of mothering c) dealing with life and it will never be the same, and d) the process of acceptance/denial.

Lauver (2008) using a phenomenological method and van Manen's approach for analysis examined the parenting experience of having a child with a chronic illness from the perspective of a foster parent. Thirteen participants were interviewed; her study revealed that foster parents had similar care-giver experiences when compared to biologic parents. Parenting these children required a commitment; parents also experienced feelings of uncertainty, frustration, anticipation, and anxiety. Moreover, for these parents, adaptation and a process of "coming to

know" the needs of the children were important aspects of parenting their chronically ill children.

Blum (2007) conducted a qualitative study focusing on mothers with children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). In this study, mothers reported that they were blamed by society for their inability to control their children's behavior. Peters and Jackson (2009) also conducted a study on mothers' experiences parenting a child with ADHD and the dominant themes they found focused on caregiver responsibility, being criticized and stigmatized, and experiencing guilt and self-blame. Nelson (2002) also reported in her meta-synthesis that mothers stated they experienced mother blaming and were aware of societal judgment. In contrast to these findings, in another study on children with ADHD, Segal (2001) using grounded theory methodology found that mothers said they felt relieved from any blame for the challenges their child might be experiencing. The mothers in this study said their feelings were the result of their understanding that ADHD has a physiological basis and furthermore that this could absolve them from any blame because the diagnosis was not viewed as a result of poor mothering.

Mothering children with asthma and diabetes were also the focus of studies reported in the literature. Lin, Mu, and Lee (2008) examined Taiwanese mothers' experiences with children with Type I Diabetes Mellitus. These researchers using a phenomenological approach and Colazzi's method for analysis identified that in Chinese families in which mothers are the primary caregivers for children with chronic illness, the themes that emerged included "worrying about your child's safety," "creating a safe environment" and "normalizing the child's life." MacDonald (1996) conducted an ethnography with mothers to examine the meaning of mothering a child with asthma. Eight mothers of children with asthma ages 3-10 years were

investigated. The overall theme the researcher identified from the interviews with these mothers was "mastering uncertainty." Chronic uncertainty was found to be one of the greatest stressors of mothers of children diagnosed with a chronic, life-threatening disease. In summary, while only one study was found that examined mothering an obese child (Jackson et al., 2007), the literature reviewed on chronic illness and disability was more substantial and considered relevant to this study's aim.

**Critique of the Literature**

This overview of mothering and obesity was undertaken to understand the current relative issues in both theoretical and research literature. Mothering is a well-known process and has been studied by researchers and clinicians in the major disciplines. There has been agreement across disciplines in that the mothering process focuses on nurturing and caring. The role of the mother has been recently addressed by feminists who believe that mothering can occur in diverse ways and in differing contexts.

Although much is known about obesity in children including its prevalence, cost burden comorbidities, impact on health and various prevention and intervention strategies, little work has been undertaken on the role of the mother or mothering an obese child even though parental influences have been cited as an important factor impacting childhood obesity. Related work on mothering children who have disabilities or those who live with a chronic condition may provide some insight into and overlap with this study's findings on the experiences of a mother of an obese child. Especially relevant are those studies reviewed that were qualitative in design.

Given that mothers are usually the primary caregivers of young children, maternal involvement is critical for successful obesity prevention and treatment efforts. Researchers have identified that maternal beliefs, perceptions, and behaviors play an important part in treating and

preventing childhood obesity. Literature has noted that engaging mothers with intervention and prevention programs should begin early because efforts toward reducing childhood obesity are unlikely to be successful without a better understanding of how mothers experience the problem of obesity with their children. In addition to the focus on the child's obesity, its treatment and prevention, the experiences of the mother may also shed light on a mother's health and well-being as she cares for an obese child.

None of the theories reviewed described a process of mothering an obese child. Mothering as a process was considered in numerous theories from early infancy such as in Psychology with Winnicott's and Bowlby's theories and in Nursing with Mercer and Rubin's work; however these fell short of addressing children at other ages than infancy, or specifically the mothering role regarding children who are obese . The most closely related applicable conceptualizations about mothering an obese child was found in the literature on caring for a child with disabilities; unfortunately, these conceptualizations and themes were not further developed into a theory that might guide practice. Therefore, a study utilizing Grounded Theory Methodology (GTM) to describe the process of mothering an obese child is warranted. Using an inductive method will illuminate the mothers' perspectives about her experiences. Findings from GTM research can be developed into a substantive theory from which middle range theories can be developed, and findings may lead to hypotheses-testing research, all of which add to the nursing's body of knowledge.

# CHAPTER III

# METHODOLOGY

## Purpose

This chapter includes a description of the research design, grounded theory methodology, and its data collection and analysis methods. The purpose of this study was to describe the process of mothering an obese child from the mother's perspective.

## Study Design and Philosophical Underpinnings

The Grounded Theory Method (GTM) (Glaser & Strauss, 1967) was used to explore the process of mothering a child who is obese. Grounded Theory Methodology was initially used in sociology but has been used in many other disciplines including anthropology and nursing. Grounded Theory is an approach that discovers a theory as it emerges from the data. Grounded theory identifies social processes present in human interaction. Because grounded theory as a method captures social process in a social context and focuses on social processes and changes over time, this research approach is most useful when the goal is developing a theory that explains human behavior in a social context. This methodology is also appropriate when little is known about a certain phenomenon or process under investigation. Mothering involves a process dimension, a social dimension, and behavioral dimension and involves human interaction. In this area of inquiry there is a paucity of research available on the process of mothering an obese child.

Grounded Theory Methodology has its roots in symbolic interactionism and pragmatism. George Mead (1934) advanced symbolic interactionism by postulating that it is a social process whereby an individual develops and becomes a rational being through social interaction. Blumer (1969) further elaborated on symbolic interactionism by hypothesizing that symbolic

interactionism rests on three basic premises: human beings act toward things on the basis of the meanings that the things have for them, the meanings of things is derived from or arises out of a social interaction and, lastly, that meanings are handled and modified through an interpretative process. In using a symbolic interactionist perspective, grounded theory methodology provides a way to study human behavior and interaction.

**Study Participants and Recruitment**

For this study the participants were purposefully selected and consisted of mothers who had at least one child who was obese and who ranged in ages from five to twelve. All mothers were able to read and understand English. Every attempt was made to obtain a representative sample of participants considering age, ethnicity and socio-economic status.

Following Institutional Review Board (IRB) approval, this purposeful sample was primarily obtained through flyers which were placed in private health care professionals' offices and outpatient hospital clinics, tutoring offices, schools, libraries, and beauty salons. Flyers were posted with permission in the various locations mentioned. The flyers contained information explaining the study, its purpose; confidentiality and contact information (see Appendix A). All flyers were in English and contained the researcher's phone number and g-mail account, both used exclusively for this study, so that prospective participants could contact the researcher to arrange for an interview. Once the potential participants responded to the flyers, the researcher determined eligibility of the participants through telephone contact with the mothers, and then arranged face to face meetings. The researcher also met potential participants through a health fair. After this initial contact at the fair when eligibility for the study was determined, face to face meetings were arranged either in a private or semiprivate office, or at another mutually

convenient location. The technique of snowballing for sampling was also employed; mothers were asked to identify other mothers who were mothering children who were obese.

Potential participants were informed of the study's purpose and procedure and matters related to consent were reviewed and explained verbally with each participant. Information concerning the study's risks and benefits, confidentiality, and anonymity was provided at the initial meeting as well as requiring signing of a consent form (see Appendix B). The researcher provided a stipend of twenty dollars and a metro card for travel to meeting sites as gratitude for participation in the study.

**Interview Guide Development**.

For this study the instruments used were a Demographic Data Form (see Appendix C) and the Semi-Structured Interview Guide developed by the researcher (see Appendix D). The development of relevant questions for the instrument was the result of an extensive literature review over a three year period in conjunction with course work and independent study. The semi-structured interview guide had broad questions accompanied by probes. For GTM, probes regarding a process focus on dimensions of a given topic, thought, or behavior described such as the dimensions of time and intensity, or barriers or supports for a stated behavior. Probes are included in the guide in Appendix D as examples of questions that might extend the dimensions of their initial responses. All questions on the Interview Guide were asked of each participant. However, every probe listed (as an example) on the interview guide was not asked because specific probes were influenced by an individual participant's responses.

**Data Collection**

Participants who were selected for the study and those who agreed to participate signed a consent form at the initial face to face meeting. Following signing the informed consent, the tape

recorder was turned on and the interview began. The data were collected by in-depth semi-structured interviews which were tape-recorded and then transcribed. After the interview the researcher kept "field notes" both theoretical and methodological notes as thoughts and feelings came to mind that enhanced the theory development of the study. Methodological notes focused on the methods used during the interview process and observations that were noted by the researcher during the interview (see Appendix E for an example). Theoretical notes are written to help further conceptualize properties of theoretical ideas and constructs. Kearney (1998) describes memoing as careful documentation of theoretical hunches, decisions and modifications which include the data that support each theoretical component. Glaser states that writing theoretically involves writing conceptually by making theoretical statements about the relationships between concepts rather than writing descriptive statements about people (Glaser, 1978, p.133).

**Data Analysis**

According to Grounded Theory Methodology, data collection, data analysis, and sampling of participants occur simultaneously. Grounded Theory Methodology uses the constant comparative method of analysis throughout data collection. Simultaneous data collection and analysis are critical during the data collection process. Interviews were compared for similarities and differences in the process of mothering for the mothers who were interviewed and observed. The interview was an on-going process which involved continual reflection of the data. Data, called "raw data" were initially coded with substantive codes that reflected the substance of the interviewee's words and observations made by the researcher. Codes developed by the researcher were compared and similar codes were clustered and given an initial label; following this categories were formed. Ongoing data collection and analysis produced other categories and

these if appropriate were combined with other already established categories. The data were analyzed for patterns of relationships between two or more categories. Theoretical sampling can be undertaken following the development of the conceptual categories when it is necessary to collect more data to further enhance or support a specific conceptual category.

**Steps in Data Analysis with Grounded Theory Methodology**

In the analysis phase of Grounded Theory Methodology (GTM), the researcher is building toward a theory. Data analysis begins with systematically coding data. The initial process of coding data is called open coding. The process of open coding clarifies and summarizes concepts and themes which will allow the researcher to identify major categories and subcategories. Glaser (1978) states that it is during this first phase of open coding when substantive codes are developed. In order to establish a relation between the substantive codes the researcher develops theoretical codes which conceptualize how the substantive codes may relate to each other. Open coding proceeds to selective coding. In selective coding only those data that are related to the core category are coded. From the process of open coding a core variable or core category is identified. The core category is the important conceptual category which explains as much variation in the behavior or process as is possible and links the conceptual categories. Often an overall basic social process (BSP) may also be identified when the final conceptual or theoretical process emerges. The BSP may be a core category that has two or more emergent phases which resolve the main concern of the group and is the core category around which the GT is developed. The BSP is used to describe the action of moving through a situation known as one of general processes relevant to individuals as they interact with and live in a society. As patterns, BSP's capture how processes change over time. A BSP must have

stages, feelings of process, change, and movement over time. Reed and Runquist (2007) believe that the BSP must focus on addressing the question, "What is the Basic Sociologic Process that underlies the phenomenon of interest?" However, all emerged processes in GTM do not have a BSP.

In summary, the goal of GTM is theory generation and through analysis of the data this allows the researcher to order categories into a logical whole. Constant comparative analysis and theoretical sampling will facilitate the researcher in the discovery of a theory that will capture the breadth and depth of the process of mothering a child who has an obesity problem. Emergence is the process by which codes and categories of the theory fit the data. Glaser (1978, 1992) stresses that emergence is a methodological requirement for generating grounded theory and is the underlying guiding principle of GTM.

**Protection of Human Subjects**

The study was approved by the Researcher's University's Instituional Review Board . All participants who agreed to volunteer for the study were informed about the purpose of the study. Risks and benefits were explained to all participants both verbally and in the written consent form. The consent form, developed for participant signing before the interviews, ensured that participants could withdraw at any time, and confidentiality, anonymity, and privacy would be maintained.

When gathering personal emotional data, and conducting research that may involve sensitive interview interaction, the disclosures of the participants may be stressful for them. As a safeguard, planning for the possibility of harm to the participants due to stress from disclosure of sensitive information was anticipated. The informed consent document contained statements and

safeguards regarding the possibility of participant stress. If this situation occurred, at their request, the participant could be referred for counseling either by a mental health professional, or a nurse experienced with counseling.

**Summary of Chapter**

This chapter presented the design and theoretical underpinnings of the study. The sample was purposeful. Participants were recruited primarily utilizing flyers. Snowballing technique as a method of recruitment was also employed. Theoretical sampling that is returning to participants for further information was the technique utilized for some conceptual categories to ensure saturation.

Semi-structured interviews were conducted. All interviews were tape-recorded and transcribed. Follow-up with a mental health professional or a nurse was available at the request of a participant if she stated or if the researcher observed that the participant was experiencing stress from the disclosure of sensitive information. From these interviews and following the coding steps for analysis, a conceptual process emerged that described mothering an obese child.

# CHAPTER IV

# STUDY FINDINGS

The purpose of this chapter is to describe the results of the study on the process of mothering an obese child. The information presented includes the description of the participants and a description of the processes and phases that emerged.

## Description of Participants

Demographic data were collected for the mothers and their children. The purposive sample included 12 mothers who resided in one mid-Atlantic state (see Appendix F for complete demographic information). The mean age of the participants was 41 years old with a range of 35-53 years. The mothers were from differing racial groups and nationalities. Five mothers were African-American, four mothers were Caucasian, two mothers were Asian, and one mother was Hispanic. The marital status of the mothers included: eight women were married, two were divorced, one mother was single, and one mother was living with a partner. Eight mothers described themselves during the interviews as having an obesity problem.

The ages of the children who were obese ranged from six to twelve years. The mean age of the children who were obese was nine. The length of time each child had been obese ranged from five months to six years . These ranges afforded the researcher an opportunity to examine the various perspectives of the mothers, depending on the length of time their child was obese. In this study, the gender of the children who were obese included nine who were female and three who were male. Three participants had other children in the household; however, none of the other children in these households was obese. One participant revealed that she had another

child in the home who previously had an overweight problem and had subsequently returned to a normal weight for her age. One participant in the study had twins and both children were obese.

**Recruiting Study Participants**

To recruit mothers to participate, flyers were posted with permission on bulletin boards and/or left on counters in libraries, private tutoring centers, doctor's offices, beauty salons, day care centers, and pediatric clinics in hospital settings and outpatient clinics. The researcher also gave flyers to school nurses. The researcher attended a school health fair in the recruitment area and distributed flyers at the health fair; two participants were recruited at this fair. The snowball sampling technique was also used in this study.

The flyer for the study contained all the information concerning the eligibility for the study and contact information (see Appendix A for flyer). Contact information included a private phone number and g-mail address used exclusively for the study for participants to contact the researcher. The flyer also listed information concerning the stipend for volunteering for the interview, which was $20 for the interview and $10 for transportation to the interview site.

Participants who met the following criteria were recruited: mothers who perceived their child to be obese, who were able to read, speak and understand English, and had an obese child of school age, between five and twelve.

Once the initial telephone or in person contact, such as at the fair, was made to determine eligibility, the mothers were asked about their child's age and if the child had an obesity problem. Then the researcher arranged with the mothers for an interview time to meet. Two mothers who contacted the researcher were excluded from the study because their child did not meet the eligibility age. Only one of the final 12 participants was referred to the researcher through snowball technique.

**The Process of Generating the Conceptual Categories**

The aim of this study was to generate a substantive theory which explained the process of mothering an obese child. The analysis of the data began simultaneously with the data collection.

**Data Collection**

Institutional Review Board (IRB) approval was granted from the researcher's university. The researcher secured a private office space located in a near suburb at an easily accessible location to conduct most of the interviews. Most of the participants were interviewed in this venue because it afforded the privacy needed to help ensure that the mother would feel comfortable in answering questions of a sensitive nature.

One interview was conducted at the researcher's university. One interview was conducted in the participant's home. The interview times were chosen by the participants for their convenience. Most of the women worked full-time so interview times were scheduled after work such as after 5PM.

Before the interview commenced, the researcher explained the purpose of the study and informed the participant the interview would be audio-taped (see Appendix B for Consent Form). Once the consent form was signed and permission was given, the interview was conducted. The duration of the interviews ranged from 45 minutes to 1.5 hours. The interview questions were semi-structured which allowed the researcher to explore participants' feelings in their responses to the interview questions (see Appendix D for Interview Guide). During the interview, notes of the interview were taken by the researcher; the notes described nuances or nonverbal cues. After the interviews were concluded, methodological and theoretical notes were written in a notebook, and notes were also written after the researcher reviewed each transcript (see

Appendix E for an example of a Methodological Note). After the interviews were audio-taped, they were transcribed by a transcriber. After the transcription of an audio-tape was completed, the researcher reviewed each recording with the transcription to search for gaps or possible misinterpretations in the transcription process. After interviews were validated, the transcription using the constant comparative analysis procedure was undertaken. The researcher's supervisor oversaw the coding process. This involved, first, line by line coding (Glaser & Strauss, 1967). This continued with each new transcript for coding, listing codes and comparing transcripts for similar phrases for coding. Phrases were categorized and these raw categories emerged which were collapsed or renamed. This resulted in twenty-seven categories.

The twenty-seven raw codes were reduced and continued to be examined for conceptual understanding of an evolving process (see Table 1 for Examples).

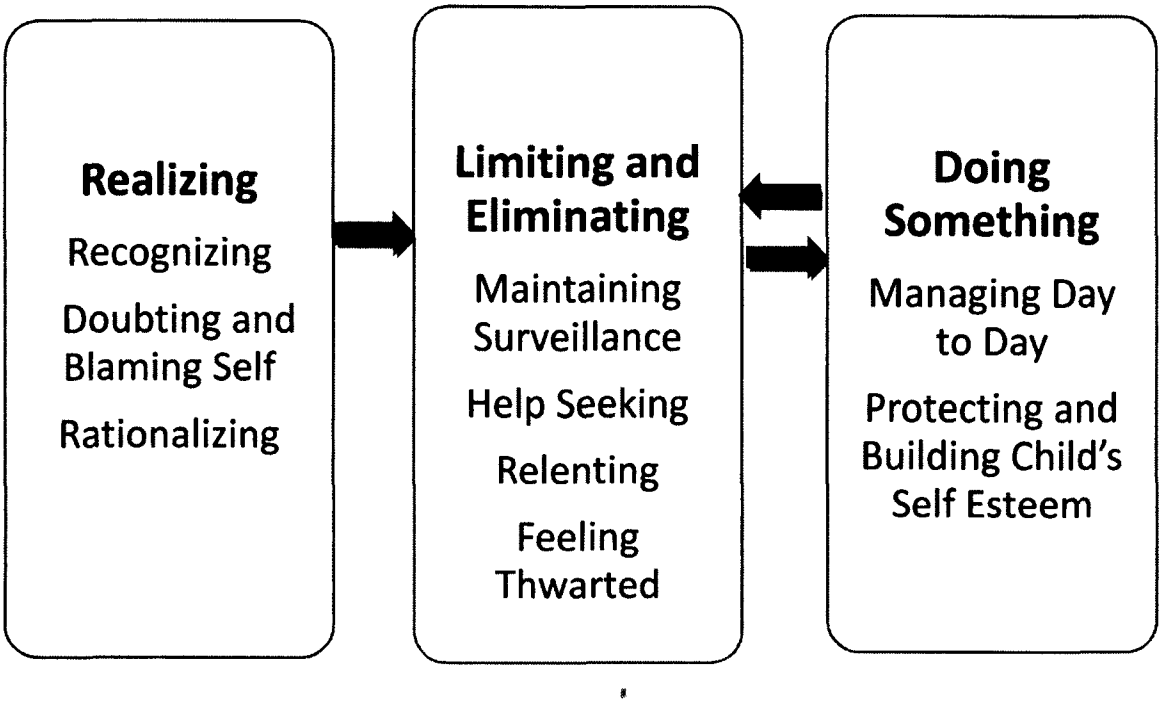
Table 1 Examples of Raw Codes and Beginning Categories

| Raw Codes | Beginning Categories |
|---|---|
| Outcomes health<br>Outcomes safety<br>Emotions<br>Self-Doubt<br>Inadequate coping | Feelings about mothering an obese child |
| Family<br>Health care providers<br>School | Support/No Support |
| Teachers<br>Outside Acquaintances<br>Stranger Reactions | Outside World |
| Lack of self-confidence of mothering<br>Own weight<br>Own upbringing<br>Own fault | Self-Blame |

During supervised work coding and in reviewing and thoughtful independent work to determine conceptual categories, it was determined that more in-depth data were necessary as the process emerged and category saturation began. This was undertaken to obtain more information regarding the category that explained the mother's social world, relationships and economic concerns. The researcher then contacted two of the participants by phone, and permission was granted to conduct a second interview with the participants over the telephone.

Continuing to re-read transcripts and notes assisted with the development of three main conceptual phases in the process of mothering an obese child. Each phase has sub-phases that were identified. They were called phases rather than stages to denote a fluid movement in the process rather than a linear or unidirectional process from phase to phase; the mothers moved back and forth as they described the process of mothering. The final conceptual model named Limiting and Eliminating: The Process of Mothering an Obese Child is depicted in Figure 1 with the phases and sub-phases or conceptual categories.

Figure. 1 **Limiting and Eliminating: The Process of Mothering an Obese Child**




**Description of the Phases in the Process of Mothering an Obese Child**

**Phase 1: Realizing**

Within this phase of "realizing", there were the three important conceptual categories of *recognizing, doubting and blaming self,* and *rationalizing that emerged.* Figure 1 presents the phase and its categories. Each of these categories within this phase of realizing is described.

When asked during the interview when they as mothers had first noted their child's obesity, many described experiences that were mostly external that led them to this. The role as a mother of an obese child was often expressed as one that was unfamiliar to them. They were uncertain of its reality, its causes and an initial approach by them. This first recognition for many of the

mothers led to self-doubt and self- blame, and to a questioning of their own competence and ability as a mother.

For most of the mothers, recognition of their child's obesity was influenced by a specific occurrence, and for a few, from self-reflection. Some mothers used a comparison to other children as a cue to realizing that there was a problem. Other mothers were prompted when they were informed by their health care provider, or by comments that were made by a close family member.

*Self-doubt* and *blaming self* were expressed by many of the participants. The mothers were concerned about their ability to take care of or help their child. Self-blame caused a few of the mothers to label themselves as not a "good mother", as one mother commented, "yeah I feel guilty. I feel like I'm not capable to be a good mother." Some mothers had struggles with their own weight and wondered about how this might have influenced their child. One mother had specific habits of her own that she described as a potential cause or one that may have contributed to her child's obesity. She expressed, "me and my sweet tooth didn't make it any better, when we get to the supermarket, I give in...her dad fusses at me all the time, if any more snacks come in the house, me and the snacks got to go."

Rationalizing was expressed by some of the mothers in that they viewed that their child's obesity as *not* a problem, therefore they said that they did not need to be concerned at the present. The rationalization was noted by two mothers who described their child's obesity as a phase that their child would outgrow, minimizing it as a problem.

**Conceptual Category I: Recognizing**

When asked when they first noted that their child was obese, most mothers could pinpoint a specific time. The recognition for some followed an interaction or an observation. The interactions were usually with a health care provider when they were in their office for another reason. The observations, for example were their own comparisons of their child's weight or body over time, or in comparison to peers, or if the mother over time noticed the child becoming "fatter." There seemed for some mothers to be a marked difference, as they viewed their child, between being overweight or "being a big kid" and having a weight "problem." For one mother, she described thinking about it for some time before she "recognized" it.

When mothers were asked about recognizing obesity in their child, one married mother of a 12 year old described how she saw her child's obesity prior to realizing it would be a problem, she commented:

> Because before she just like, she's like a big weight, I think it's okay, not a really big problem. A few years ago she had overweight, I think it's okay. She's just maybe like a big size kid. It's okay I don't feel guilty. Now I realize that it's a health problem and could cause serious bad result. That's what I think about. I (am) seeing her getting big but I'm not seeing it as that way, I'm looking at it as acceptable. Compared to a few years ago, at that time, compared to the other normal kids, she had overweight.

One mother took her twin daughters to her health care provider for a check-up and did not recognize that her daughters were obese until informed by her physician.

This mother recalled:

> One of my daughters got a real bad rash around her neck and I took her to the doctor…she told me she wanted to do blood work on her; find that her insulin was a little high. So what she did was, gave me a diet plan.

One mother realized her daughter's obesity when comparing her to other children of her own age. She explained, "well, she was short compared to her peers and her weight just keeps going even though she was not growing."

**Conceptual Category 2: Doubting and Blaming Self**

Following this recognition, the problem for many mothers became a grappling with the cause of the problem. Some mothers discussed their own feelings of guilt about the problem and used phrases such as "I caused it" or "it is in the genes." When blaming themselves, some mothers described their feeding practices with their child as the cause. In one instance, the husband told a mother directly that she had "caused this." For one mother, she described herself as "depressed" because she was responsible for her child's weight problem. How this could be happening to one child and not to the other children was an example of a mother searching for the cause.

This feeling of responsibility for the obesity caused one mother to doubt whether she was a good mother or a bad mother and what she needed to do to be a good mother and eliminate the problem. There was a sense of urgency for this mother, because she expressed that if she could not be a good mother and tackle the problem, the situation would get worse.

If a mother had a weight problem, she often blamed herself for being a poor role model for her child. Some mothers were especially focused on wanting to be a positive example for their children. The mothers described feeling guilty, if they indulged in foods or prepared foods they considered "fattening" or unhealthy. These mothers said they "should not" eat certain food while

the child was present with them, or they hid certain foods in the house. They not only blamed themselves, they were also blamed by others.

As the mothers reflected on their own mothering behaviors in the past, they also blamed themselves for not limiting portion sizes for meals at home and dining at social engagements. The mothers also questioned their role as a mother with their obese child and especially because they had mothered without concern their other children in the home who were not obese. One mother of a nine year old girl who was obese for five years described her feelings of self- blame, "Am I the one who did this, feeding her putting cereal in the bottle?" Another mother of an only child who liked to go shopping for clothes for her daughter commented, "I'm depressed now because I look at her and I'm like why did I let her get like that."

A mother of a twelve year old girl who was obese for six years commented, "I made poor food choices when she was younger." This mother who was battling her own weight problem described it this way, "I am sorry I contributed to this because of my genes." One mother was blamed by her spouse for her child's obesity and said, "I know he's right." One mother described her fear and uncertainty in her new role. She was a mother of four children who she mentioned were all skinny and never had a weight problem. She said, "My other children were always a healthy normal weight; I didn't have that fear of what I am doing is not correct."

**Conceptual Category 3: Rationalizing**

Mothers described that they believed at one point that their child would "grow out of it" and that their child's obesity was only a "phase." This working mother, a pediatric nurse, had two older children a boy and a girl who never had a problem with obesity. Her expectation was that her younger son would eventually outgrow his obesity problem. Rationalizing was also seen in this

response by a mother of a ten year old boy who was overweight for two years. Her son was very active with sports especially with her husband, so she was not worried about his weight at the present time. She said, "I think I would be more concerned if this carries him as he gets older and he doesn't really thin out. I think he probably will go through a big growth spurt, we're all waiting for it, I'm hoping."

Denying was often used as an approach during this phase. When mothers were questioned concerning what were the difficulties of having a child who is obese, denying that it was a problem was mentioned. This mother of four often took trips with her children abroad for their summer vacation and described that there was plenty to do to keep them active and by being active her child would lose weight. She was not concerned about her child's obesity. She said, "I really don't think it's going to be a problem. I think that as long as she keeps active and all the rest of it that everything will even out." One mother of a twelve year old girl who was obese for six years stated that when her child was getting bigger, she thought this was just a part of growing up, and she was not very anxious about it. She expressed it this way, "I just think she's a kid I think it's okay. Before she has big weight but I think it's okay not a really big problem." A mother of an eight year old boy who was her only child denying was evident with this comment, "One time he told me somebody told him, he's fat, and I told him, no you're not fat you're chubby."

Following the realizing there was a problem, mothers embarked on strategies that primarily focused on limiting foods or in some cases eliminating them or venues that they believed were responsible for their child's weight status. This *limiting and eliminating* phase set in motion the sub phases of *surveillance, help seeking, relenting a*nd *feeling thwarted.*

**Phase II: Limiting and Eliminating**

The second phase that emerged from coding the transcripts and conceptualizing categories was named "*limiting and eliminating.*" In this phase of limiting and eliminating, mothering an obese child was focused on limiting and eliminating foods or even specific restaurants or eating places including social occasions that the mother regarded as responsible for the child's obesity. When the mothers were questioned about their mothering role now, and what they believed was important with their child who was obese, overwhelmingly all of the mothers described this strategy of limiting and eliminating certain foods as the primary strategy planned. Limiting involved restriction regarding snacks or sweets, eliminating fast food was also considered a strategy. Noteworthy, adding exercise or discussing food substitutions to reduce weight was rarely discussed. One mother had a food plan from her endocrinologist but also made a plan on her own, one which again focused on limiting and eliminating. Only one mother discussed a food plan that was successful with one daughter at one point in the past. She said she focused more on a healthy eating plan and exercising rather than just on limiting and eliminating "forbidden" foods. Some mothers resorted to hiding food in the house or not bringing food into the home which was considered "bad" or harmful to their child, unless it was a special occasion such as a birthday.

In the limiting and eliminating phase, important sub-phases were evident (see Figure 1). In this phase the sub-phases were conceptualized as *maintaining surveillance, help-seeking, relenting* and *feeling thwarted.*

Throughout this phase there was a focus on the need to maintain some sort of surveillance. The surveillance itself was an action-oriented sub-phase to oversee interventions in place and what was working or falling through the cracks. Surveillance also included watching for

reactions from others to their child's weight and obesity. Monitoring was more specific and actually involved mothers watching food intake such as after school snacks, and the child's compliance with rules and plans that were in place.

With *surveillance*, mothers scrutinized school lunch menus, and checked their child's back pack when he/she came home from school to see if the child had consumed prohibited snacks. When one mother who worked returned home, she inspected the garbage for wrappers for snacks that were forbidden. Surveillance also included looking for the types of foods caretakers might give to their child. Surveillance was a looking for possible breeches in established plans for weight loss.

*Help-seeking* a second category in this phase was an important strategy for most mothers. Some mothers described seeking help from a variety of sources. Depending on the mother and what she specifically needed help with, the source would be different. For example, mothers would seek out a teacher if the issue was the child's self-esteem and bullying in school. Family members were consulted often for personal support as the mothers struggled. While providers were also sought out, mothers reported most as not helpful and one mother described being chastised by a health practitioner regarding her child's obesity. Strategies were often met with failures and some mothers described that their best attempts were sometimes undermined by family members. The subcategory "feeling thwarted" describes how mothers felt when they experienced not being successful in accomplishing their strategies for their child. Frustration permeated these four sub-phases of limiting and eliminating. The categories and sub-phases of the main phase *limiting/eliminating* were again not linear and unidirectional (Figure 1).

## The Core Variable: Limiting and Eliminating

This phase that was also identified as the main category in the process emerged as the core variable for the study. It was a significant category because it was the focus of every mother's strategy for her obese child. Most of their comments were about foods such as cookies, chocolate, chips, starch, fast food and ways they had engaged in limiting them or in some cases eliminating them. Some mothers also limited amounts of foods. Only a few said they substituted foods for those limited or eliminated. On occasion, mothers would mention fruit as a substitute food for sweets.

Very little conversation centered on the word "unhealthy" but more often than not, these were foods that "made their child fat." In fact, eliminating and limiting was also described as strategies for which they were reinforced when one or two mothers consulted health care providers. One mother described hiding cookies. Her child's reactions to her limiting and eliminating foods triggered disagreements as she describes the following interactions with her child:

> Well, we argue because she wants the cookie and I say you can't have the cookies, like you can have one or two, not six or seven… we hide those now in the cabinet that is not within her reach.

This working married mother of four children said she values her mealtimes with her family. None of her other children had a weight problem. When the whole family was eating what was prepared for dinner, she did not restrict her other children to food choices at mealtimes. She expressed how she feels when she limits her child who is obese:

> Well I feel bad for her because I mean she likes to eat and we try as hard as we can to limit her, especially starch. She likes bread and rice and I think she is aware

> that she is overweight. But for kids it's hard to kind of control sometimes when they see pizza or fresh baked French bread.

One mother described her child's behaviors because of the eliminating of foods, "he's hiding in the bathroom eating this…there was candy wrappers all over the place…he did this because he was afraid the other ones were gonna eat it, or that I would probably take it from him." When mothers were questioned about the biggest challenge in mothering an obese child, this mother responded:

> My biggest challenge is having him stay away from those sweets, really having him stay away from the candy and the cookies and whatever else comes in the house that I didn't bring in, or if we go someplace my biggest challenge is to say to him, no.

This mother described why she avoids bringing "restricted" foods in the home to help her daughter. She commented:

> Sometimes when she wants to eat the candy, chocolate, even she knows it's not good for her, not healthy for her, she still eats it. That's why I don't buy the chocolate candy stuff in my home, I don't have it.

This mother of twin girls, both of whom were obese since they were five, and now were nine, when questioned concerning why both are obese and not just one, said that they both wanted the same things, and have the same desires and behaviors for craving sweets, fast foods and asking for more portions at meal times. She described how she limits and eliminates:

> Well you want to put limitations on – you want to put limitations on the amount of processed food that they're going to have. Like so I said, you don't have soda in the house because if there was soda in the house then they would just

> automatically drink it. You're not gonna let them go out to fast food restaurants every day.

Grocery shopping with their obese child also presented its problems for mothers. This mother described her experience when going grocery shopping with her son, "I try so hard not to go down those middle...the snack aisle's always a favorite. I kind of shop the perimeter of the store." One mother of a daughter who has been challenged by her daughter's obesity for six years described her interactions with her child when they go grocery shopping together. She described her experiences at the supermarket this way:

> She'll put things in the cart without me seeing and we get to the register. I ask her to put back the stuff, she put in the cart. Puts something like chips, chocolate stuff. When we pay I tell her to put it back. I'm like, no put that back, she gets mad, she gets so sad.

Even if some mothers were not concerned about the child's weight presently they were concerned and identified the limiting strategy for the future as this mother of a 12 year old boy who was about to enter middle school commented:

> I mean if he does top over the scales, over the 95$^{th}$ percentile, then I think he should have some diet counseling. I would have to eliminate all the snacks in the house for that reason, just to show the way to really truly eat healthy.

One mother even though she exercised limiting food as a strategy she was troubled concerning this strategy. She described her feelings of guilt over her limitations of food for her child. When this mother was growing up in her culture she described how she was often given huge portions of food at mealtimes by her mother and grandmother and she was expected to eat all of it. She said that as a mother this demonstrated your love for your child. When packing her

child's school lunch she often limited her lunch to a sandwich and a piece of fruit. She describes how she feels when she limits, "I'm feeling guilty. I feel like I'm not giving enough food to her."

**Conceptual Category 1: Maintaining Surveillance**

One of the most discussed strategies during this major phase of Limiting and Eliminating was monitoring and surveillance of the child's eating. The mothers used monitoring to prevent or control some aspect of the child's eating such as overeating or eating foods "not allowed" even at meal time. Some of the concern on the part of the mothers took the form of surveillance---- watching for eating and staying vigilant to ensure eating certain foods did not occur. While monitoring was primarily at home, mothers expressed concern that they could not monitor the child when he or she was not at home and thus they implemented surveillance strategies. For example, some mothers were distressed about their child attending social activities outside of the home such as birthday parties because they could not monitor what the child ate. In some cases this seemed to be a conflict, wanting their child to attend activities especially if they believed this socializing might help their self-esteem, and on the other hand, knowing that they could not monitor their eating. They questioned the child extensively after the event as well as warned the children of limits before the event.

As mentioned, few mothers discussed specifics about what their dieting expectations were or how they arrived at them. Control through monitoring regarding what not to eat was a predominant experience for them. Foods were viewed as "negative" and "positive" and thus the monitoring was around this view; snacks and sweets were often the most identified foods that needed monitoring.

Surveillance occurred when the child was in school, if the child ate school lunches that were provided by the school. Mothers described examining the weekly school lunch menu. Not being present to monitor their child at school was particularly troubling and caused some mothers to speak to the school nurse or teacher about including healthy food choices for school lunches, although healthy was not always defined. Sometimes these strategies were extreme. This mother described how she used surveillance if the child ate when the mother was away from home,

"I will go in the garbage and look when I get home because I buy a lot for him to make sure that's what he's gonna choose." This mother described her behaviors as analogous to having a child with special needs. She responded, "so as for the mothering you have to set limits and watch out for things just like if a child had a handicap, guarding the child, especially when you go out." For monitoring this mother described her behaviors, when she tries to control what he is eating on a daily basis. She compared herself as equivalent to being a cop, "it's like ok we're playing good cop, bad cop."

How monitoring and surveillance provided mothers with a sense of control is evident with this mother who said , "when he's at school you know you have no control at all over what he is eating." Another mother described this control, "most time I think I am in control, like in daily life, when we get home, not in school, in school I can't control." When the child comes home from school one mother commented on inspecting her child's back pack, "sometimes I can see the empty bag she brought home from school, I think from the vending machine, like chips, chocolate candy, sometimes she says her friend or classmates gave to her." Another mother described her monitoring behaviors this way, "I am the food Nazi now that I am home more."

If the mother was working, some mothers said that their work schedule would interfere with their surveillance of their child's eating. This mother of a six year old boy who had been overweight for five and a half years described it this way, "working full time during the day is definitely a challenge, time management, because I'm not there to monitor him and what he eats".

**Conceptual Category 2: Help Seeking**

When asked in the interviews about supports they might have and directly asking about advice they might have received from experiences with health care, mothers described their role in this area as reaching out almost without a specific intention. The mothers described seeking help from various sources and the help they received often would reinforce their strategy of limiting and eliminating certain foods. "Dieting" and removing certain foods from the child's diet was a common strategy expressed by healthcare professionals, friends, and media sources the mothers consulted.

The mothers described how they vacillated between sources, not knowing from which source help might come to support them in their efforts. The participants discussed some individuals that were supportive such as family members or teachers. They sought help from the internet and from books. Mothers specifically described helpfulness as those individuals with whom they were comfortable such as their own mother or a sister. One mother however reached out to her sister and did not receive much help from her. This mother of an eleven year old child who was obese since she was six described her experience of seeking help from her sister:

> I said what do you think I should do? She goes 'I never had to deal with it. It made me feel bad inside'. You're my sister, be supportive to me and help me. What should I do? I'm asking you for advice.

This mother of an eight year old daughter who said she received tremendous support from her mother would often go to her mother for help and advice. She said:

> My mom, I feel she is the one that understands. She just said try everything you can. Go on the internet, see what you can research. I've been asking my mom, what books can I read? I go to my mom and ask her what I can do.

One mother who went to her healthcare provider commented, "she gave me a diet plan. She said it was for their health, told them to make it their responsibility." Another mother who went to her healthcare provider for help responded, "they said to look online and see what else you could feed her." One mother who inquired what to do from her healthcare provider expressed it this way, "she was very firm and not understanding of the process that we had gone through. This is the first child that I have had in this situation, I would rather you educate me than chastise me."

The internet and books were described by some mothers as a way of help seeking but no specific strategies seemed to come from these. They consulted family relatives and health care providers for resources for books and internet sites.

When the mothers were asked about seeking advice from friends and acquaintances one mother expressed it this way:

> I don't let too many outsiders in my business, because like I said any decisions I make once I find out from the pediatrician then it's up to me there's nobody else cause nobody else taking care of my children but me, so it's my job, my responsibility.

Another mother said when asked about talking with other parents at her child's school, "I don't feel that they're supportive because the parents don't understand what, how, what I'm

dealing with." This mother expressed it this way when a mother approached her saying how glad she was that their daughters would get together in a specific class because they are "both fat and at least will have each other to talk with". The mother's offense was described as wanting to see her child as normal and happy and said:

> Most of advice I get you know sometimes it is unsolicited advice...I just brush it off...I just found it like it was almost offensive because I felt like it was none of her business it's not your child you don't know me well enough to have this discussion with me.

The toll that monitoring and surveillance took as well as the perceived lack of help led the mothers to another process, relenting.

**Conceptual Category 3: Relenting**

During the interviews when asked about the difficult aspects of mothering and how they cope especially with the frustration they were expressing, some mothers said they were often just tired especially, of the monitoring. They described struggles over their child's eating foods they did not want them to eat and finally "giving in". This conceptual category of relenting related to monitoring and surveillance failures. Some tried so hard to be in complete control that being out of control and giving in was failure to them. This relenting came with other problems issues for them. The mothers who relented often blamed themselves for adding to the problem and this feeling was often reinforced by comments of family members or outside acquaintances.

The times they relented for example were described as going to fast food restaurants or giving in to what they considered negative foods such as snacks. Relenting was often justified as a timing/no time or scheduling issue, or a realization that her obese child would not "enjoy life" if

she did not relent. One mother blamed her own obesity and wanting fast food as a reason for relenting. If mothers were overweight themselves, for some mothers relenting took the form of going to fast food restaurants with their child, or buying and bringing home sweets, cookies, or candies as a "treat for both of them". In some families, mothers were criticized by their spouses for relenting and giving in to the child's demands.

This married mother of an 11 year old child whose husband commented on the giving in for her child's obesity commented on his view:

> Her father says I give in to her too much, rather than fighting against it and saying no. Giving in to the child's demands. Because I give in a lot. Just this one little time. I'm my own worst enemy at times.

Although the mothers in this study tried to control, enforce, and monitor their child's food, and they relented at times, they also described the role others played in their feeling thwarted in their efforts---both relenting and feeling thwarted came with negative emotional consequences.

**Conceptual Category 4: Feeling Thwarted**

In this conceptual category of feeling thwarted, the mothers expressed not being successful in their various attempts, and having an unfavorable outcome. This viewpoint was more of a standing back and looking at the processes they were engaged in. The word thwarted for this category was used to emphasize the mother's attempts to do something, even as her attempts very often led to failure, being stopped, criticized, or hindered in trying to address the problem of their child's obesity. Their attempts were thwarted by individuals such as spouses, grandparents, in-laws, caretakers, their own child, or their own behaviors. They also described the environment such as school lunches and vending machines in the school as hindering their efforts to address the problem. The mothers often expressed their own child's behavior as a constant hindrance.

Behaviors of the child included sneaking foods that were not allowed, or consuming too much food at social gatherings. Mothers also described their own "thwarting" behaviors. Behaviors of the mother included relenting by giving in to their child's demands or being a poor role model by making poor food choices. One mother described her own behaviors as a weakness explaining that she did not want her child to witness her in her most vulnerable state. In this phase of thwarted attempts the mothers described feeling frustration and anxiety.

Many mothers also stated they were thwarted through time management/scheduling. These thwarted attempts occurred at various times and for several reasons. For example, one mother blamed her husband for several thwarted attempts. This mother stated that when her husband picked up their daughter after school, they immediately drove to a fast food restaurant to buy a big hamburger sandwich, even though she repeatedly asked her husband not to do so. She also stated that her spouse is a poor role model by making unhealthy food choices himself, such as making high calorie and high fat sandwiches for his snack. Her daughter was beginning to ask for the same snack. As this mother described it, "she is seven, for the last five years, it's been an essential battle." Other mothers also stated that for those children who had grandparents, most of them were described as undermining any effort they tried to enforce. The grandparent most often mentioned by the mothers was a grandmother. The grandmother did *not* follow the plans to limit the types of foods the mothers explicitly told her not to give to the child.

One mother's son had been taken care of by her mother since he was six months old. This single working mother also lived with her parents. Her obese son's grandparents prepared all the meals in the home. Her son would often tell her what transpired during the day when his mother was at work. The grandmother would often give her son foods that she had emphasized should not be given to her son. She described one experience her son mentioned to her: "if he comes

and says grandma what you eating, she says don't tell your mom…she likes to spoil her grandchild."

This mother described her experience when she leaves her son with her mother-in-law after school, "grandma has a tray in her refrigerator with Hershey's kisses in it… as soon as he gets to grandmas, the refrigerator is open."

When mothers were questioned concerning overall what hinders them in their role as a mother of an obese child, this mother described weekly visits to her in-laws. This mother and her family visit her in-laws once a week for Sunday dinner and she said, "well, my in-laws. They have quite a lot of junk food in their house. I mean really, they have chocolate, and they provide them with a lot of sweets."

When mothers were asked if they spoke to their family members concerning the undermining of their efforts, the mothers responded that they were hesitant to discuss this topic with them for specific reasons. This mother responded, "because I feel like I'm going to be hurting their feelings." One mother of a six year old boy, whose mother cared for her son when she goes to work commented, "no, no I wouldn't speak to my mom about that because it would never change it."

A few of the mothers said they were being thwarted by the school environment in the type of choices offered by the school for lunch. The mothers who expressed this stated that the school lunches that were provided were often unhealthy and left the mother with little or no choice while the child was in school. A mother of a nine year old girl who had been obese for one year described the situation in her child's school, "School lunches, school environment, school menu, every time I read the menu – I know they have hamburgers, pizza, chicken nuggets. I am not pushing too much because it's no way for me to be there at lunch hour." This mother who had

been working since her children were six months old also commented on the school, "You know the school is not giving you what you need… it's the lunch, that I'm more concerned about because it's not healthy at all. I mean, I don't know what they are thinking."

Spouses were especially singled out as thwarting mothers' overall efforts. The mothers claimed spouses or others to be unsupportive in their efforts to help them manage their child's obesity. The mothers described this unsupportiveness especially when they would take the child to fast food restaurants after school. This mother described how her husband undermines her efforts when he picks up her son after school, "when my husband picks him up, he goes to the fast food restaurant. He goes to (restaurant name). Me, I go to the Jamaican restaurant and buy him food, vegetables, rice and peas."

This married mother who was a student depended upon her husband for caretaker responsibilities for their nine year old daughter and responded:

> When I was out of the house from like 6AM to 10PM four days a week it was difficult…and you know my husband, he would pick her up from school and would take her to a fast food restaurant because she is Daddy's little girl. She would get a cheeseburger meal with a side order of chicken nuggets and then she would come home and still have dinner…my husband and I had this discussion and I said she can't have the two meals.

There were similar frustrations expressed regarding caretakers. Some mothers described being thwarted saying that whomever was the caretaker for their child while they were at work, whether it was a family member or an acquaintance was sometimes a stumbling block in their efforts to control the food situation. This mother described her frustration when dealing with a caretaker:

> One time I had a babysitter. Three days in a row she took them to (fast food restaurant) for lunch...and I had specifically said to her that I didn't want them going there every day. And then I found out that she had taken them three days in a row to (fast food restaurant) because she was just too lazy to prepare lunch.

Another mother reiterated this and said, "but the babysitter, she let her eat what she liked. She didn't like vegetables, she didn't feed her vegetable. She likes to snack, she introduced her to snacking. And I'm like, no, no, didn't want that to happen."

Mothers also described how their own child's behaviors thwarted their best efforts. Some children would often complain about the food choices their mother would make, whether preparing school lunches or in serving meals at home. School and attending social events were particularly worrisome for the mother because the mothers would object to the food choices the child would make, again feeling thwarted. One mother described bringing to a halt her child's behaviors right before dinner time. She commented that when her daughter comes home from school she heads straight for the refrigerator. She said, "I have to put a stop because she can keep going to the refrigerator. She can eat a banana, she goes for the bagel, she gets the cheese sticks, and she can eat before dinner."

Some mothers took great pains to prepare school lunches for their child often arising early in the morning to make lunch for them before they left for work. This mother described how her child responded when she prepared her lunch box for school, "mom, my other friends they don't bring fruit for a snack every day. I'm the only one you know. They have potato chips; they have fish cookies, pretzels. Can you get those for me?" Mothers also described behaviors from the child such as refusing to eat vegetables at meal times, or hiding and sneaking foods that the mothers described as "negative foods" and those undermining their efforts to curb their child's

obesity. This mother explained how her efforts were often thwarted by her child, "I make sure she likes to take her snacks to school, I buy snacks. But she comes back with snacks I didn't give her...we talked about the pros and the cons of that."

**Phase III: Doing Something**

The third phase identified actually overlapped with the Limiting and Eliminating phase (see Figure 1). *Doing something* was a phase into which mothers moved back and forth. Within this phase were subcategories of *managing day to day,* and *protecting and building their child's self-esteem.* The mothers interviewed never mentioned giving up even though they relented and felt thwarted. The mothers saw themselves as doing something while at the same time describing how their strategies were not working. This "doing something" became the mother's way of being a mother. Some mothers described doing something as doing the best they can, others said they were trying. Mothers would describe an experience in which they expected change, and often their major strategies of limiting and eliminating were broken down into smaller goals such as getting the child to eat vegetables. This was "doing something." It was important for the mothers to be perceived by outsiders such as strangers on the street or while shopping as working on this problem. Throughout there was the often implied "at least." There seemed to be a sense that no matter what, they were doing something for their child.

Important in doing something and expressed often was protecting their child's self-esteem. The two conceptual categories described here of *managing day to day* and *protecting and building their child's self- esteem are described* and emerged as a positive intervention.

**Conceptual Category 1: Managing Day to Day**

In managing their role, the mothers in this study related creative ways they had to manage their role as a mother, wife, daughter, and employee and care for their obese child within these many roles. Often the mothers could relate some positive or creative ways they tried to help their child that did not necessarily fit into the main strategy or their main focus of limiting and eliminating. This subcategory was one in which mothers moved back and forth with Phase II.

The mothers who worked described feeling challenged. Scheduling was an issue that affected being a mother of an obese child because the schedule often conflicted for some mothers with preparing food. There was a realization, acceptance, and a satisfaction that they were doing something. This was especially noted when they described their own lives as hectic especially because they were working. Two of the mothers were also attending college. Some described their role as juggling many things. One situation that some of the mothers said had hindered them in their efforts to help their child was in their own time management and scheduling. When mothers were questioned about what they might describe as difficult being a mother? One mother said "overwhelming" and she expressed that she "needed to put her priorities where they needed to be." Mothers who were employed, the majority of mothers interviewed, said that there was little opportunity and time to prepare "healthy meals" when they came home from work.

The mothers commented frequently that they worked long hours and were tired when they came home. When they came home from work they did not have the time to "shop and prepare the best meals" for their child. If they did the preparation and cooking, the mealtimes might often be very late. If dinner was prepared too late, the mothers were concerned that the child

would "grab anything to eat" before the meal was ready. Some mothers would purchase take-out meals to resolve the situation and as a way of managing.

In the management of their homes on a daily basis, mothers were very cognizant of the fact that if they were working this impacted on the preparation of meals in the home, a fact they said worked against them.

One mother expressed her sentiment this way about why she felt her child was obese:

> It happens because of scheduling you know. It has to do with scheduling…I'm a working mother not a sit at home mother…you're gonna eat out because it's faster…it's eating out or eating in because if I get home and have to cook they're gonna eat later.

This mother of three children who was working full-time and was a full-time student described it as setting priorities:

> It's hard you know working full time having to take care of a family so it's like, overwhelming, it's not easy managing your time…you know you have a lot of situations going on at once, so it's like putting your priorities where they need to be.

When mothers were questioned about their day to day life and mothering an obese child, this working mother with two other children responded:

> It is difficult because I work at night time so when I am coming off my night shift, I will just sleep a few hours so I am able to work with my child and manage her daily activities, but it really is a big team effort between my husband and myself.

One mother who worked full-time for many years, whose son was obese since he was an infant, described feeling guilty because of her work schedule. This was her only child and she compared herself to other mothers in not having the opportunities to take her son to the park or signing him up for gym classes all because she had to go to work.

Because addressing their child's obesity had been a long term process for some of the mothers interviewed, one mother made an insightful comment about her mothering role.

She explained:

> I had to change, so I could change the kid. We had to change together, not just the kid should change. I need to change first so the kid can cooperate with me together. I know it's very hard to take it day by day.

For the most part managing day to day even though overall their main strategies of limiting and eliminating were not working, some mothers discussed solving their "managing" issues by eliciting their parents, their husbands and in some case their friends to help out. There was a sense of thinking ahead. Some mothers made changes such as having a snack drawer just for the child, and shopping the "perimeter" of a food store if the child accompanied her to buy food. Always having fruit in the house and making lemon water to drink were some other strategies that were ongoing and required thinking ahead. Again, the importance during the interviews was placed on "at least" I am doing something about my child's obesity problem.

**Conceptual Category 2: Protecting and Building Their Child's Self Esteem**

Protecting their child's self-esteem was another way mothers were "doing something." The self-esteem interventions were related to the feelings the child expressed or the mother observed

because of their child's obesity. Mothers described shopping for appropriate clothes or talking to teachers to prevent bullying as important strategies for their child's self-esteem. Some mothers made sure their children socialized and went to parties even though they knew their planned food restrictions would not be enforced. Some mothers said that did not want their child to be ridiculed because of his/her obesity. The mothers were acutely aware of others' reactions to their child's obesity and these included their child's peers, extended family, friends, acquaintances and strangers and worried how this would impact on their child.

The mothers employed different strategies to protect and/ or "build up" their child's self-esteem. If the child was at an age at which she/he would start junior high school, the mothers were even more determined that at this age, this was an important area on which to focus. Some of the children had faced bullying and teasing in elementary school and the mothers were concerned that their child would be a "target" and face the same situation especially in their new school as they expressed that in middle school children bully more.

The various strategies the mothers would employ to protect their child's self-esteem included having talks with their child, teachers, spouses, and other family members in the home. Conversations during the interviews would center on ways to protect their child from being ridiculed or suffering harm at school or in the home. In the process of mothering their children in the protection of their self-esteem, this also involved concerns about expressions and comments that were made by others especially family members. Comments and criticism from members of the family who were not obese such as other siblings in particular worried some mothers. Mothers discussed wanting to be protective so that comments would not be hurtful.

However, talking with their child about this was sometimes expressed as a "not knowing how" but at the same time knowing it was important. Importantly, mothers articulated they did

not want to hurt their child's feelings or cause any undue stress for him/her. In not knowing what to say regarding comments from others, one mother said, "you're always afraid. You don't want to hurt their feelings because you don't want to flat out say "baby no, you're too big... so you know you try to word it different."

One mother talked about the connection in her view between losing weight and its effect on self-esteem by saying that her child would be happy and have friends. She commented, "If I can just get her to lose this weight, I think she'll have more self-esteem. She will feel more happy about life, get along with others."

This mother of an eight year old daughter said that in her role as a mother building up her daughter's self-esteem would help her daughter with feelings of satisfaction about herself. She expressed it this way:

> ....trying to build up her self-esteem so that it doesn't affect her. So you try and instill that into her. That it's not about your appearance, it's who you are as a person, and I think that builds up her self-esteem if she feels good about herself.

Mothers looked for role models as a strategy to have an impact on their child's self-esteem. This working mother of a nine year old girl described her strategy, "I will go on the computer and find women that have made an impact on history or women that are successful in their careers or women that do benevolent journeys." Another mother also thought about successful role models. This mother described what she did, "What helped me to help her emotionally and mentally because I told her look at Jennifer Hudson, look at Queen Latifah, and I give her some examples. I gave her a few people to look up to."

Even though mothers believed it was an important aspect of mothering for them in building and protecting their child's self- esteem, there was anxiety for these mothers in what their child

might experience on a daily basis in the future that would hurt their child's self-esteem. One mother whose son was twelve and was about to enter junior high school expressed her concern. She was anxious that her child would be an object of ridicule when he started going to his new school. She described her apprehension:

> Body image is a big thing going into middle school, so I'm a little cautious, so I'm a little nervous that some of the other kids he's meeting new friends and I'm nervous. Nobody wants their kid picked on. I don't think anybody will pick on him, but I don't want that to happen.

One mother of a seven year old whose child had been obese since she was two described it this way:

> I don't want the children picking on her that was the biggest thing because society is not gentle on overweight children, and no matter how strong I make her confident she still is going to have to fight that battle.

Comments made by older siblings who never had an obesity problem were a concern for some mothers. This mother of three children described scenarios occurring in the home:

> They just bust his chops constantly, sometimes they can get mean, they're teenagers. They pick on him a little bit. He (her older son) does tease him, and you can see it bothers him. It probably bothers him a lot.

Still another mother commented on her daughter's sensitivity. This mother described comments made by family members and how she intervened:

> She's very sensitive because some of my husband's family will actually make comments about her. You know like that she's got a little belly or she's getting

> fat. So if anything, I try to put it back into a more positive spin and that, "No, you're not. As long as you feel good about your body, it's okay.

Some mothers commented on the relationship between self-esteem and comments from others as this mother expressed:

> It's a concern of mine so I think in handling that I build her confidence up now so that I tell her that it doesn't matter what people think. Well just that's life. People are gonna say things. She's got to be prepared for it and trying to build up her self-esteem so that it doesn't affect.

A few mothers were sometimes told by outside acquaintances that their child would be teased and would have a hard time socializing with peers. Some of the mothers spoke to teachers directly seeking help and support because of a concern their child might be experiencing teasing events at school. This mother described how she reached out to her child's teacher because of her uneasiness:

> I spoke to the teacher because I was a little concerned maybe that kids were making fun of him. I wanted to know that he wasn't being made fun of because he was a little heavier than the other kids.

The mothers when they spoke to their child's teacher hoped to garner support to protect their child if they were not there to protect them from teasing and bullying from their peers. This mother spoke of her initial despair when her child was teased in school:

> They make fun of her. I feel terrible. I feel bad for her. She's getting teased in school. I talked to the teacher. She's talked to the kids and it's gotten a little bit better. She's such a nice teacher and I really like her teacher. She was like, I

totally understand. I'll speak to the children. Don't worry, we'll work it out and she did.

Throughout this phase, which overlapped with phase two, mothers moved back and forth especially from feeling thwarted about limiting and eliminating food to at least doing something. The less frustrated and more positive aspects of the mothering role came through as they described creative ways they managed day to day and significant ways they protected or tried to build their child's self-esteem even though their main focus and strategy of limiting and eliminating was not successful.

## Description of the Core Category

In Grounded Theory Methodology, a core variable often emerges from the conceptual categories in a process. It is considered the "lynchpin" or the category that connects the other categories and often explains most of the "action" in a process. As described as Phase II, the core variable that emerged from this grounded theory study was *limiting and eliminating*. Limiting and eliminating best explained the major strategy and action all the mothers took in caring for their overweight child. The mothers' life and role revolved around this strategy. There was an intense focus on limiting and eliminating foods considered off limits by the mother and this main strategy and action permeated all aspects of their daily role and life. Their social world, family relationship, and their direct interactions with their child revolved around limiting and eliminating foods. There was little time or energy as described by these mothers' to focus on other aspects of their daily life and the mothers spoke of little else but concentrating on this strategy for the obesity. Only as an afterthought did the mothers give credence to many of their

other strategies described in "doing something" because their expressed failure or being thwarted at limiting and eliminating as a strategy overshadowed all.

## Summary of the Chapter

In this chapter, the process of collecting and analyzing the data was presented. This included transcripts and theoretical and methodological memos. The demographic variables were identified. This grounded theory process that emerged of mothering an obese child unveiled three important phases which were not linear and overlapped especially between Phases Two and Three. The process, each phase and subcategories that emerged, were described through a model (Figure 1) and the phases were supported by excerpts from verbatim transcripts. The core variable of "Limiting and Eliminating" best explained the overall process.

# CHAPTER V

# SUMMARY DISCUSSION, IMPLICATIONS, RECOMMENDATIONS, AND CONCLUSIONS

This chapter will cover a summary of this grounded theory research, its design, methods and findings and is followed by a discussion section. Because the initial Review of the Literature covered main topics and could not be specific to what would emerge as the study's "process", a more extensive review is considered here in which the study's findings are described and compared with theories and published research specific to the emerged process. Implications for clinical practice, health policy and nursing education are identified as well as recommendations for further research. Finally, conclusions are presented regarding the study.

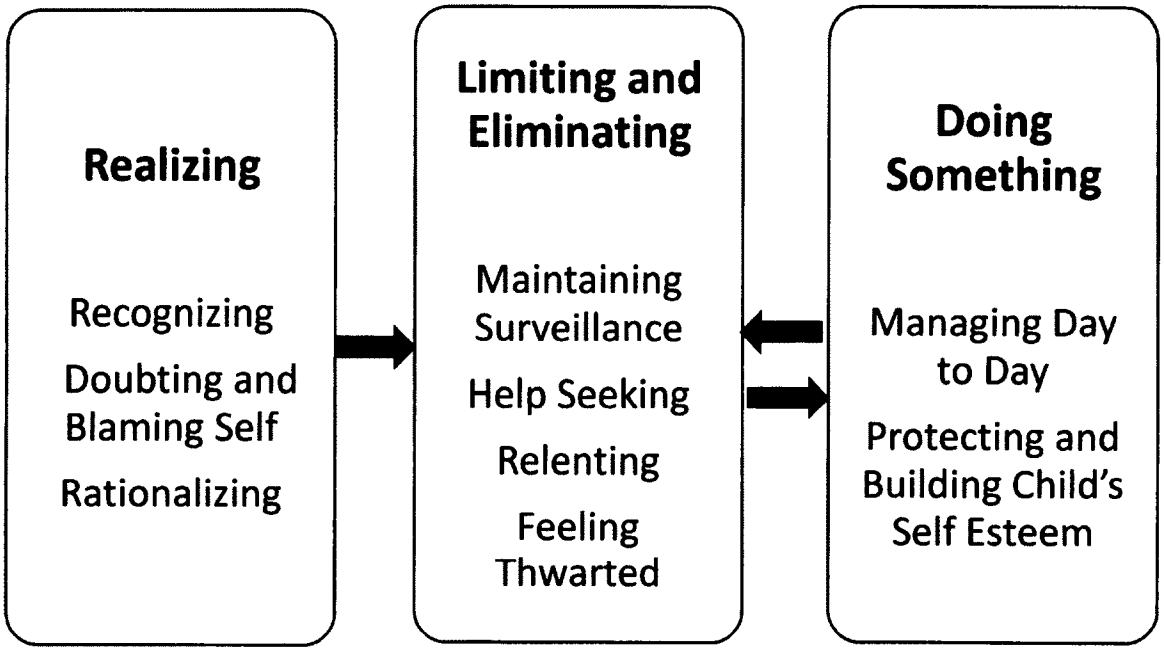
## Study Methodology and Summary of Study Findings

The purpose of this grounded theory study was to describe the process of mothering an obese child. The setting for this study was conducted in one mid-Atlantic state. The volunteer sample was obtained by flyers placed in doctors' offices, pediatric hospital out-patient clinics, public libraries, child care centers, tutoring centers, hair salons, and through snowball technique. The researcher for recruiting also attended a school health fair in the region.

This purposive sample included twelve mothers ages 35-53 who could speak and understand English, who had at least one school-age child 5-12 years who was obese. The sample included mothers who were ethnically and racially diverse with various educational backgrounds; they were graduates from high school to doctoral level. Eight of the mothers were also overweight. The researcher developed a semi-structured interview guide with probe questions to

guide the interview (see Appendix D). The mothers participated in an audio-taped in-depth interview lasting 45 minutes to one and a half hours. The interviews were then transcribed. Field notes and methodological notes were documented in a notebook while conducting the interview as well as after the interviews were finished. Theoretical memos were kept throughout the research as the conceptualization of the process of mothering an obese child began to emerge. Data analysis and data collection occurred simultaneously and was conducted by the researcher with supervision from the faculty advisor. The transcripts were analyzed according to the constant comparative method of Glaser & Straus (1967. From this, categories emerged which led to the final emerged conceptual process of three phases. Data collection ended with category saturation. The researcher returned to prior participants to conduct theoretical sampling to clarify developing and emerging conceptual categories. The three phases that emerged were *realizing, limiting and eliminating, and doing something (*see Figure1). These phases were not linear and overlapped especially between the second and third phases. As concepts became clearer, a core variable was identified. The major category that emerged was also considered the core variable, *limiting and eliminating*. This most important category was the behavioral pattern that influenced the mothers as they progressed through the three phases. Each of these phases is comprised of sub-categories that first emerged and they further explain the three phases. Each of these phases supported in Chapter 4 and their related conceptual categories were discussed with respect to comparing what is currently known with this emerged process. Especially important in comparison is the core variable that emerged in this study: limiting and eliminating.

Figure 1. Limiting and Eliminating: Mothering an Obese Child



## Discussion

This study of the process of mothering an obese child revealed *limiting and eliminating* as the main strategy used by the mothers and was identified as the core variable in this study and emerged from the conceptual linkages in the process; it was considered the best explanation for this process. The three phases, *realizing, limiting and eliminating, and doing something* were not linear and overlapped with each other, particularly within phase two and three. That is, mothers moved back and forth in this process. As with any emerging conceptual model, how this study's findings fit with relevant literature and what is known about mothering an obese child, both from theoretical perspectives as well as from research findings is important as a contribution to knowledge. Therefore the goal of this discussion is to examine and critique how the current study's findings support, illuminate, extend or refute the relevant literature especially considering findings from other studies.

The goal of the discussion section is to situate this study's findings through literature comparisons, within the broader established understanding of childhood obesity and the mothering role. The first section of the discussion focuses on the mothering role and the important theoretical literature especially in nursing. Following this, the literature on the perspectives of mothers and her role in mothering an obese child are presented in comparison with the study's findings. In the following section, because limiting and eliminating was the core variable and major category in this study's findings, the literature especially on "restricting", a well-known construct in the obesity literature, and also dieting, especially its role historically in weight loss are discussed.

In the next section of the discussion, this study's three phases along with specific major categories are explored and compared to the theoretical as well as research literature. Finally, a

summary and critique of the discussion and the relationship of this study's findings to other research and theory are presented.

## The Mothering Role: Theoretical Perspectives

### Nursing Theory

In the discipline of nursing, Mercer in her theory of *Becoming a Mother* (2004) emphasized that establishing a maternal identity in becoming a mother contributes to a women's psychosocial development. Mercer asserted that in contrast to physical development which is linear, psychosocial development progresses or develops through a widening or spiraling to increase one's adaptive functioning. Mercer proposed replacing the phrase maternal role attainment (MRA), a theory developed by Rubin (1967), to becoming a mother (BAM). Rubin's theory of maternal role attainment describes a transitional process that culminates in a woman achieving maternal role identity. Mercer (1985) described maternal role attainment as a process in which the mother achieves competence in the role and integrates the mothering behaviors into her established role set, so that she is comfortable with her identity as a mother. Mercer's work embraces concepts of maternal role attainment such as attachment, competency, pleasure and gratification in the maternal role. Mercer (2004) however maintained that maternal role attainment does not include the continued expansion of the self as a mother. Mercer stressed that the process of BAM should be studied in transitions along the mothering continuum such as becoming the mother of a school-age child, or becoming a mother of an adolescent, or other mothering experiences, and should explain how this process differs as a woman expands her maternal self. Mercer (2004) operationalized MRA as comprising attachment, competency, pleasure and gratification in the role and is a process that involves four stages: anticipatory, formal, informal, and personal.

Attaining competency in this new role, as identified by Mercer, was a significant issue in this study. In this process, mothers experienced a great deal of self -doubt about their role regarding their obese child and feelings of inadequacy. This self-doubt led to feelings of uncertainty in this new role. As this one mother said, "my other children were always a healthy normal weight, I didn't have the fear that what I am doing is not correct".

In this process of mothering an obese child, the mothers did, as noted by Mercer, seek maternal role models for guidance and direction mainly through their families, health care providers or books and the internet; however they did not have a maternal role model from whom they could learn the expectations of the role, nor were they able to mimic or identify any mothering behaviors. A few of the mothers went to their own mothers or sisters, as in the mimicking that Mercer describes.

Mothers said that their experiences were very personal, as is one phase of Mercer's transition stages, and they did not want to open up to others concerning this new role. As this mother commented, "I don't let too many outsiders in my business, it's up to me", or as this mother remarked, "I don't discuss it with them. We just kinda talk about what the kids are doing rather than their weight."

There was some pleasure and gratification in their mothering role; however it was limited because they did not feel competent in their mothering behaviors. Mercer (1985) stated that low maternal confidence delays the transitioning into maternal role identity as well as limits the satisfaction in the mothering role.

**Sociology, Mothering and Obesity**

Sociologists broadly define mothering as a socially constructed set of activities and relationships involved in nurturing and caring for children. Much of the work on mothering in

sociology focuses on gender roles using gender role theory. Gender role theory emphasizes that the function of the family is to teach children behaviors associated with their gender. The role of the mother, and the behaviors involved in that gender role is thought to meet the needs of the child's development. Zegman (1983) argues that females are generally more motivated to lose weight than males, however they rarely are provided with precise information on obesity and dieting. In the present study mothers searched for precise information but remained within the one strategy of limiting and eliminating foods. According to Cogan and Ernsberger (1999), a coalescence of multiple and inaccurate notions about weight, health and dieting, each reinforcing the other, is widely accepted by the lay public and professionals. Societal messages through media, magazines, and television rarely provide accurate information. Women's magazines continue to advertise untested and unproven methods that promise easy and rapid weight loss. It has also been suggested that the dieting industry exploits women by creating a market that ensures that women will continue to support the dieting industry. Even though weight loss programs have a high failure rate, women continue to believe the propaganda promoted by the dieting industry (Yancey, Leslie, & Abel, 2006). In the *Limiting and Eliminating* study, mothers had a number of strategies related to food restriction and for the most part continued to seek information from the media especially from the internet.

Within the discipline of Public Health, it is reasonably accepted that social and economic factors rather than solely individual choices are the underlying cause of the rapidly increasing proportion of obesity. The case for an obesogenic environment has been made in scholarly papers (Frieden, Dietz, & Collins, 2010; French, Story, & Jeffrey, 2001; Shepherd, 2009) and in books aimed at informing the public (Nestle, 2002; Brownell & Horgan, 2004). In society today, it could be argued that the mothers' daily struggle with a child who is obese is made more

difficult by environments that increasingly promote excessive food intake and discourage physical activity. Mothers in the present study only considered the school environment as needing change and primarily saw that change as related to school meals or potential bullying. There was very little from the mothers in this study regarding exercise or the environment such as their living proximity to fast food restaurants; most relied on the notion of individual choice as the solution.

While some important societal responses to address the obesity epidemic in children have been addressed in schools with the use of body mass index measurements (BMI) and sending parents school health report cards (Soto & White, 2010; Ryan, 2009), the mothers in this study saw the school systems as working against their main strategy which was one of changing food choices.

**The Mothering Role in Childhood Obesity**

In contrast to the overall focus on society at large, weight control behaviors for children have been relegated to mothers (Babington, 2006; Barroso, et al., 2012; McPhie, Skouteris, Daniels, Jansen, 2014). The responsibility for decision making about food and nutrition is mainly the mother's role. Mothers set the stage for how a child will view food and deal with food. The mother is the mentor for health habits (Briley, 2004). Mothers play an important role in their child's development and play a crucial role in helping to develop their child's daily health regimen especially regarding their food intake and physical activity levels (Crawford, Timperio, Telford & Salmon, 2006). In the present study, while providing meals for their child was always considered an important and integral part of the mother's role, little emphasis was given to physical activity. Two mothers mentioned that they wanted to increase their child's activity by involving them in sports and one mother mentioned using computer video game programs such

to involve her child in more physical activity. However the main focus for all of the mothers was on dieting and this overshadowed all other strategies that may have proved successful.

One of the few studies examining the role of the mother while caring for a child who is obese was conducted by Jackson, Wilkes and McDonald (2007). This study used a narrative approach with a feminist lens for the methodology and is one of the few published studies offering some insights into the perspectives of the mothers in this process. Eleven mothers with children who were obese, ages 14 months to 15 years participated to describe their experiences. The researchers' findings were grouped into the following themes; feeling judged and blamed, experiencing frustration and uncertainty, being a reluctant role model and despairing for the future. Even though the ages of the children were of a wider range in this study than the *Limiting and Eliminating* study, there were some similarities. Jackson, Wilkes, and MacDonald (2007) found that mothers felt blamed and stigmatized for their child's weight status as an overweight child, because they viewed food provision and nutrition as their responsibility. The Jackson et al.'s study participants expressed uncertainty about how to initiate change in their children because of their lack of knowledge; they also did not want to appear critical of their child. They blamed themselves for their child's obesity, as one participant said, "you tend to blame yourself; maybe I shouldn't be having these foods in the house." Participants were also blamed by family members in both studies such as husbands. In the present study and Jackson et al.'s study findings, anxieties about the child's self-esteem influenced mother's reluctance to discuss their child's weight. Overwhelmingly, the mothers blamed themselves for what they did in prior years such as allowing "fattening foods" in the home, or visiting fast food restaurants too frequently. In this way the present study findings lend support for Jackson et al.'s themes of uncertainty and blame.

In comparison to Jackson et al.'s study, an important difference was the focus and strategy in the present study on monitoring. In Jackson et al.'s study mothers were concerned that monitoring the diet too strictly would make their children rebel and not choose healthier foods. This monitoring identified as *maintaining surveillance* was a significant subcategory in Phase II of this study. Rebelling because of strict diets was not at all described in the present study although some research supports this result of strict monitoring.

One important article reviewed discussed specific roles mothers play regarding a child's weight, eating, and physical activity if a child is overweight. McCaffree (2003) cited five roles including provider, enforcer, role model, advocate, and protector. The mother as provider sets the tone for foods that are served at home. These influences take place in the initial stages of eating and usually continue for the rest of the child's life. The enforcer is the mother who is so concerned about the child's weight that the she can become controlling. The role of self-regulation is no longer the child's domain but is transitioned to the mother who is very concerned about the child who is overweight. The role model is the mother who provides a visual picture and demonstrates a healthy weight management lifestyle by displaying positive eating and physical activity behaviors. The advocate is the mother who feels a responsibility to speak about her concerns regarding the child's health. The protector is the watchful eye which includes responsibility for the child attending events, and food messages in the media (McCaffree, 2003).

Mothers in this present study might be viewed as functioning in some of these five roles as they cared for their obese child. The mothers were the ones responsible for providing meals and meal preparation. Some mothers revealed that they were trying to serve more healthy and nutritious foods to their family. However, the majority of the mothers described periods of relenting or being thwarted (categories in the second phase) in their efforts to be an effective role

model for their child in this role. Some of the mothers described their attempts to be a role model with respect to food choices and their attempts to exercise. One mother commented, "I started going to the gym and I started doing all these regimens." However, this was not the case for many mothers who struggled with their own weight even though they believed their own weight and eating patterns would influence their children. With respect to the role of *enforcer,* in the present study mothers used vigilance and monitoring to enforce their strategies for weight control for their child.

Mothers in the present study almost exclusively focused on limiting and elimination, different from a strategy of *self- regulation.* Self-regulation can be defined as moving up or down depending on data provided or is viewed as keeping a balance. It also implies the responsibility of the individual to "self" regulate. Mothers attempted to control the child's weight through eliminating and dieting instead of a focus on a strategy of regulating.

With respect to the role of *advocate*, the participants in this study discussed advocating for their child by speaking for them with teachers, as well as with health care providers. The mothers' most significant concern was around the issue of bullying or fears that this might happen because of their child's obesity. The mothers in this study also described examples of the role of *protector*. An example of this could be seen as mothers described how they worried about and developed strategies for their child's self-esteem. While protection of the child's self-esteem and advocating for them are parts of McCaffree's model that were aligned with the mothers' descriptions in the present study, often the role of protector and vigilance took on behaviors that were designed for the need for "control" over eating.

In summary the study's findings on mothering had some similarities to the roles outlined by Mercer in *Becoming a Mother* and some of the roles described by McCaffree (2003) for

mothering regarding weight and eating. Importantly, self-regulation as a role described by McCaffree was viewed in stark contrast to limiting and eliminating in which balance was not considered.

With respect to society, mothers in this study continued to use the internet and other media as their sole source of information. They saw the solution to the problem of obesity as one of individual choices and did not consider the environment as an issue; however they did view school as a problem, however, only in that schools worked against mothers' plans to change individual choices. The Jackson et al.'s (2007) qualitative study had similar findings to the *Limiting and Eliminating* one especially around the themes of uncertainty and blame. However, importantly, mothers in the present study did not describe rebellion against strict dieting as leading to increased food intake for their obese children.

## Limiting and Eliminating

In this study the overall process that emerged was one of *Limiting and Eliminating* which is closely aligned to the process of dieting and dietary restraint. Historically, dieting has been a main intervention for weight loss in this country for decades despite evidence that it as a strategy by itself, it is not effective for weight loss. It may have however been the most familiar strategy to the mothers in this study and was used for their own overweight struggles throughout their lives. Mothers who control or restrict what their children eat believe they are doing what is necessary for their child even though the findings from research challenges this assumption (Birch, Fisher & Davison, 2003; Hendy & Williams, 2012; Jansen, Mulkens, & Jansen, 2007; Lindsay, Sussner, Kim & Gortmaker, 2006; Morrison, Power, Nicklas, & Hughes, 2013; Rhee,

2008; Spear, 2006). Dietary restraint, the construct used for dieting in the clinical and research literature, has had a significant role in much of the earlier research on eating and obesity.

**Dieting and Dietary Restraint**

Since the 18th century, the notion of diet as health shifted to diet as a strategy for weight loss. The idea of a "diet" today is synonymous with a weight-loss regimen or strategy. During the last century, the US and other countries' populations' preoccupation with losing weight has increased, even becoming, according to some psychiatrists, a national neurosis. According to Foxcroft (2012), many researchers, scientists, and health care professionals claim that dieting is a process on which one embarks laden with emotion, and the whole enterprise has the potential for failure. As early as the 1950's, Stunkard's conclusion that dieting does not work with his famous quote claiming that 95% of dieters regain weight five years after treatment is well known among scholars investigating dieting (Stunkard & McLaren-Hume, 1959). Researchers today continue to conclude that for most people, diets *do not* work. Most dieting efforts are not successful, and if they are with respect to some weight loss, the weight loss is not successfully maintained (Faith, Scanlon, Birch, Francis, & Sherry, 2004; Ogden, 1992).

Dietary restraint involves voluntarily restricting food intake while denying hunger cues as well as stopping eating while still hungry. In reviewing studies of the long-term outcomes of calorie-restricting diets to assess whether dieting is an effective treatment for obesity, the reviews in the literature generally draw two conclusions: 1) diets do lead to short-term weight loss, 2) these losses are not maintained.

In a systematic review of the literature, researchers Mann, Tomiyama, Westling, Lew, Samuels, and Chatman, (2007) evaluated the scientific evidence and the studies' strengths for making governmental policy decisions for reimbursement purposes for obesity treatment.

Across these studies, the overall quality of the evidence in the use of calorie-restricting diets for the treatment of obesity revealed that diets were *not* the answer for the treatment of obesity. This review also concluded that the more time that elapsed between the end of a diet and the follow-up, the more weight that was regained by the subjects. For example, the largest weight loss occurred in a study that unfortunately also reported the shortest follow-up time. Studies have shown that most individuals who use calorie restriction as a weight loss strategy gain back approximately 30 to 50 % of the weight loss within one year and all of the weight within five years (Devlin, Allison, Goldfein, & Spanos, 2007). In the present study, mothers were unaware of the body of research demonstrating the failure of diets for weight loss and its maintenance.

Researchers have identified three possible mechanisms through which dieting could lead to the development of overweight. First, dieting may result in an increase in metabolic efficiency; this may lead to dieters requiring fewer calories to maintain weight. When dieters relapse from their restrictive diets and return to their normal eating habits as usually occurs, the weight gain re-occurs. Second, dieters may also binge eat after a period of caloric restriction. Researchers have found that dieters were more likely than non-dieters to binge eat after a cycle of restrictive eating (Field et al., 2003). Third, dieters usually will consume a high amount of carbohydrates for energy, and the physiologic response to high consumption of oral glucose suggests a possible mechanism linking high carbohydrate intake to weight gain (Spear, 2006).

Dietary restriction has been associated with resultant overeating in adolescents (Spear, 2006). Dietary restriction including avoidance of meals can have an adverse effect on weight. Calderon, Yu, and Jambazian (2004) conducted a study on students who reported having a dieting history by using meal skipping to control their weight and compared them with their peers who did not report trying to diet. These researchers found that the students who skipped

meals did not experience any weight loss. The students who skipped meals ate an average of only two meals per day, while their normal weight peers ate three or more meals per day. This important research finding although captured in the Jackson et al.'s (2007) qualitative study findings was not found in the present Limiting and Eliminating Study. It was often years that some mothers in this study continued to restrict their child's food with failure as a result.

**Children, Dieting and Restriction of Foods**

There are only a few prospective investigations on the outcome of dieting in children, a process typically overseen by mothers. One longitudinal study was conducted by Neumark-Sztainer, Wall, Haines, Story, and Eisenberg (2007) in which the researchers hypothesized that dieting would predict weight gain in adolescents. The study explored the possible mechanisms by which dieting predicts weight gain. The researchers found an association between dieting and an increase in Body Mass Index (BMI). This study builds on prior studies that have demonstrated strong evidence between dieting behaviors and weight gain in adolescents over time (Field et al., 2003; Neumark-Sztainer, Wall, Story, & Standish, 2012; Neumark-Stzainer et al., 2006; Stice, Cameron, Killen, Hayward, & Taylor, 1999; Stice, Presnell, Shaw & Rohde, 2005).

There are a few studies and systematic reviews that further address the process of what this present study identified as *limiting and eliminating*. This is most often described as "food restriction" in the literature and is considered an aspect of feeding style, although in the present study there was also the focus on eliminating eating/food places as well such as fast food restaurants. Faith, Scanlon, Birch, Francis and Sherry (2004) conducted a review of 22 studies on the effects of parental feeding styles and their relationship to a child's eating and weight status.

The researchers concluded from this review that there was only one aspect of parent feeding behaviors and patterns that was associated with an increase in weight gain in the child: parents' feeding restriction. Comments from parents regarding restricting were those such as "I have to make sure that my child does not eat too many sweets (candy, cake, ice-cream)" or "I intentionally keep some foods out of my child's reach." The mothers in the present study used similar strategies for restricting. One mother remarked, "we hide those now in the cabinet that is not within her reach." Another mother mentioned, "we try as hard as we can to limit her, especially starch." Another mother said, "I have to put a stop because she can keep going to the refrigerator..., she can eat before dinner."

Some researchers have tested a model developed by Constantzo and Woody (1985) in which it was hypothesized that when parents try to exert control over the dietary intake of their child, this attempt at control will cause a decrease in self-regulation of the child's eating behaviors. This "over-control hypothesis" was tested and confirmed in several studies, in that the children with parents who exercised highly controlling feeding practices were less able to self- regulate their food intake; this was further related to a subsequent increase in body weight (Faith, Scanlon, Birch, Francis, & Sherry, 2004; Fischer & Birch, 2002; Webber, Cooke, Claire, & Wardle, 2010).

In another relevant study, in comparing the findings from the present study, researchers were interested in determining how maternal restriction of girls at age five influenced the girls to eat in the absence of hunger (EAH). This longitudinal study examined how maternal restriction at five years of age affected girls' EAH who were from seven to nine years of age (Birch, Fischer & Davison, 2003). The study consisted of 140 girls and their mothers. The girls whose mothers reported using higher levels of restriction for their child when she was five years of age ate more

in the absence of hunger at seven and nine years of age than did the girls whose mothers used lower levels of restriction. That is, the girls who were exposed to high levels of maternal restriction had higher EAH scores than did the girls who were exposed to low levels of restriction. Five year old girls who were already overweight and were subjected by their mothers to higher levels of restriction showed the greatest increase in overeating at age nine. This study's findings concluded that restriction is counterproductive and may not be an effective approach to curbing a child's eating.

The mothers in the present study first noted their child's obesity when he/she was anywhere from five months to six years. All of the mothers, who for their child attempted dieting *only,* were not successful in their goal of weight loss for their child. Those mothers who were in this process for a number of years experienced a "yo-yo dieting" effect, a phenomenon described as weight fluctuations with no maintenance or stabilization of weight lost.

Only one out of the twelve mothers in the *Limiting and Eliminating* study was successful, albeit temporarily, in her child's weight loss and she had been in this process of mothering an obese child for six years. She mainly attributed this to a concerted effort in incorporating exercise as an activity for her child.

It has been shown in studies in which exercise was reported as an intervention, there was a trend toward greater weight loss maintenance for those who exercised regularly. Physical activity combined with dietary modifications has been associated with long-term weight loss and weight loss maintenance (Faucher, 2007). The negative effects of dieting alone without exercise and cited earlier in several studies reviewed have been well established (Roberts, 2000). In speculating on reasons for mothers in this study to continue a strategy of restriction that is well-known to be unsuccessful and counterproductive, one probable explanation is that the mothers in

this new role did not know of other strategies or have confidence in other strategies. For example, one mother mentioned how she was left to figure things out on her own after not getting any answers related to an appropriate strategy. She said, "I did my own research and printed out this whole plan for my daughter and had a discussion with my husband about what was appropriate for her."

**Monitoring and Restriction**. The significant amount of monitoring and surveillance that mothers engaged in to ensure that restrictions were carried out although with little positive results underscores how invested the mothers in this study were in restricting. This overweight mother of an obese 11 year old daughter said, "We cleaned out the old and brought in the new. There are no more sodas in the house. There's no more juices in the house." One mother of a seven year old daughter who had been obese since she was two described her strategy, "I am the food Nazi now…I will see her and say no this is your snack, I really have to clarify it because you are having too many calories today, or there is too many grams of fat in there, and this is what you can have." This same mother reported that she consulted her doctor for dietary advice, who referred her to a pediatric nutritionist for a nutrition plan; unfortunately, this plan reinforced the strategy of limiting, restricting and monitoring. This mother related that, "they had the nutrition plan in the office, so we tailored it to what she should have, no more soda, minimize juice intake, and three treats a week, which includes if she has a soda." A mother of ten year old twins, commented, "you see I don't buy candy, they're not allowed candy". For mothers in the study, the initial response to the realization of their child's obesity was to monitor their child's eating. One mother responded when asked what is the biggest challenge in taking care of her

obese child: "time management, because I'm not there to monitor him and watch what he eats after work."

For the mothers who had other children in the home who were not obese, the restricting, eliminating and monitoring efforts with their obese child was sometimes problematic. Siblings in one home participated in the monitoring. Mothers said they were caught between providing everything to their other children with no restrictions and limiting and restricting foods with their obese child; they viewed this as an emotional tug of war for them. One mother described how her other children who were not obese would participate in the surveillance because there was the "limiting and eliminating "focus. She described what her teenaged children would say when her obese child was eating restricted foods. They would say, "What are you eating that for? You shouldn't be eating that. You're gonna get so big and fat, you're not gonna be able to run." Surveillance was a significant part of limiting and eliminating.

In summary the present study's findings did not support the literature that outlines the failure of strict dieting as a strategy in childhood obesity and that dieting for adolescents actually predicted weight gain. Even though exercise has been considered with some food restriction to lead to more successful outcomes, the mothers in the present study did not discuss exercise as a specific strategy; one mother thought it would be a good idea and be healthy, however she did not connect weight loss or success at weight loss to exercise.

**Mothering an Obese Child and Family Dynamics**

In phase two the category of "feeling thwarted" was identified. Mothers described being thwarted or undermined by others related to the strategies they developed for their child. Mothers described being undermined by spouses, grandmothers, their own obese child,

caretakers, the school environment, as well as paradoxically their own behaviors. This aspect of feeling thwarted did have an impact on family dynamics. A few studies have revealed and supported this perception of mothers feeling undermined in their management of their child's obesity and its' impact on the family.

Southwell and Fox (2011) conducted a grounded theory study on maternal perceptions of overweight and obesity in children. The twelve participants revealed their concerns about managing their child's weight. In the present study, for those mothers who had partners the mothers often felt the fathers undermined their efforts and gave in to their child. One mother when questioned about support expressed it this way, "...her Dad does give in. It's a give conflict in the house, because he's saying, I can't be bothered; I've had enough now and just gives in anyway.". This caused f conflict between the mothers and the fathers whereas mothers expressed they would try and resolve the issue through conversations with the father regarding following the strategies that the mother was trying to implement.

Another qualitative study, phenomenological in design, was conducted by Broadsgaard, Wagner, Peitersen, and Poulsen, (2013). This study examined the mothers' views and experiences with preventing and managing overweight in their children. They interviewed mothers of overweight children and mothers of non-overweight children. One of the areas identified was the relationship experiences with the family which included the relationships with the fathers, as well as the role of the grandparents. For some of the mothers of children who were overweight, only some of the grandparents were viewed as One mother described an experience with her mother-in-law, "my mother-in-law says, ...come on, she is not going to get fat from eating a piece of cake at my house." This finding also emerged in the current study in that some mothers did feel undermined and not supported by a grandmother. One mother

mentioned she was distressed concerning her mothers' actions with her son. She said she felt helpless in trying to resolve the situation, because the grandmother was the principal caretaker during the day when the mother was at work. Another mother stated the grandmother purposely kept a bag of chocolates candy in the refrigerator and when her son went to the grandmother's home, he headed straight for the refrigerator to retrieve the candy and the grandmother did not prohibit him. When questioned why she did not speak to her mother-in-law about this, she replied, it would not do any good. One mother mentioned Sunday dinners at the in-laws were particularly worrisome for her because they would have a lot of desserts and sweets at the house.

Zeller and colleagues (2007) conducted a quantitative study, cross-sectional in design to examine parent and family characteristics among obese youth who were receiving treatment for obesity in a clinic. Mothers and fathers of 78 obese children were compared with mothers and fathers of 71 non-obese children. The researchers were examining the impact of the child's obesity on family functioning and mealtime climate for both groups of families. The researchers found that in comparison to mothers of non-obese children, mothers of obese youth reported significantly greater psychological distress. Psychological distress s for fathers was not significantly different between groups. Mothers of obese youth also reported higher mealtime behavioral challenges at the family level, and characterized their family functioning as higher in interpersonal conflict and lacking in cohesion and structure. For family mealtimes, both fathers and mothers perceived mealtimes as stressful and less positive in terms of family interactions. Authors have noted an association with a positive maternal attitude toward the family meal and lower obesity risk in youth (Mamum, Lawlor, O'Callaghan, Williams, & Najman, 2005).

In the present study mothers did describe experiencing distress during mealtimes with regards to behaviors of limiting and eliminating certain foods with their child who was obese. If

their other children were present who did not warrant restriction of foods, this was especially experienced as conflict. That is e mothers, specifically were stressed about how to restrict with one child and not the others.

The findings in the present study support and expand upon the findings in these previous studies in that mothering an obese child does influence the family dynamics especially for the mother. Because family-based approaches are now considered the gold- standard for treatment for childhood obesity and is recommended for influencing behavioral change these findings are particularly relevant in planning treatment strategies.

**Obesity as a Chronic Disease for Children**

While the mothers in the present study recognized the weight gain and obesity in their children as a "problem", only a few of them worried about its long term consequences. Some mothers did mention its relationship to diabetes. In the discipline of medicine, childhood obesity is now classified as a chronic disease because of its full biopsychosocial context (Rhodes & Ludwig, 2007) and significant co-morbid conditions (Hassink, 2009; Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). However, the public, despite awareness that obesity is a problem and with the knowledge that obesity rates have significantly increased, might not be aware of the chronic nature of this disease or even that it is classified as a disease. In fact in this study, some mothers while recognizing it as a problem believed their child would "grow out of it", supporting the premise that childhood obesity may not be recognized as chronic. One mother in this study stated, "I think he probably will go through a big growth spurt, we're all waiting for, I'm hoping", or as this mother described, "I really don't think it's going to be a problem"..., or this mother of a 12 year old girl when she recognized her child was obese said she needed to do

something but was ambivalent as she responded, "I almost signed her up for Weight Watchers, but I just don't know if I'm getting to, you know, over-reacting."

One mother hinted at a possible future problem and said she was not too concerned right now but would be in the distant future. She stated, "I think I would be more concerned if this carries him as he gets older and he doesn't really thin out." On the other hand, the realization that this would be a long term process, mothering a child with obesity was realized by one mother who mentioned, "I didn't realize it was going to be so long term", another mother revealed, "it didn't happen overnight, and it's not going to go away overnight" referring to the obesity in her child. This is in contrast to the qualitative findings of Jackson et al.(2005) who identified in their findings one conceptual category as "despairing for the future" concerning their child's obesity. The participants in the *Limiting and Eliminating* study were, while not despairing, focused more on the social and emotional consequences of their child's obesity rather than the physical consequences of childhood obesity. In part this may have been because their children were "healthy" that is without symptoms of another disorder. However, in the current study, a significant number of the mothers did have concerns that were related to the child's self-esteem and emotional adjustment. They were worried about bullying and were concerned if their child would be accepted.

**Contemporary Approaches and Interventions for Childhood Obesity**

The mothers in the present study when interviewed never mentioned some of the contemporary and innovative approaches currently utilized for childhood obesity. Many of the recommendations issued by experts in the field of childhood obesity and interventions engaged in by clinicians were never raised or discussed by them during the interviews.

Clinicians, researchers and academic scientists all agree that childhood obesity is a global epidemic that needs to be abated or reversed. There is some evidence that this epidemic is abating (Ogden, Carroll, Kit, & Flegal, 2014). Internationally, childhood obesity rates continue to rise in some countries (e.g. Mexico, India, China, Canada); however in the US and some European countries there is some emerging evidence that childhood obesity may be stabilizing or slowing down in certain age groups such as preschoolers ( Han, Lawlor, & Kimm, 2010;Ogden et al., 2014). Much work has been undertaken by researchers to implement interventions to address the childhood obesity epidemic. As with any intervention, safety of treatment with children needs to be examined as well as treatment efficacy. Some important guidelines have been issued by medical associations, using experts and their research, regarding interventions.

**Professional recommendations for assessment and treatment**. Expert committees from the American Medical Association (AMA) Health Resources and Service Administration (HRSA) and the Centers for Disease and Control (CDC) for the evaluation and treatment of childhood obesity have set the prevention and treatment of childhood obesity within the context of a chronic disease model (Hassink, 2009). The AMA recommendations and guidelines advise that clinicians' assessments include BMI calculations and risk for obesity starting at age six. For overweight and obese patients these recommendations include counseling, a weight-management plan utilizing multidisciplinary teams with expertise in childhood obesity and support by the health system and the community. The American Academy of Pediatrics (AAP) endorses the AMA recommendations; however it has also added the recommendation of an annual plotting of BMI starting at the age of two years (Barlow, 2007).

**Dietary interventions**. Dietary interventions are the most commonly reported intervention strategy utilized in studies conducted in the United States. A systematic review of randomized

controlled trials measuring the effectiveness of dietetic interventions for childhood obesity concluded that there is limited evidence to evaluate the effectiveness of dietary treatment only for childhood obesity. However, interventions that *include* a dietary treatment do achieve some relative weight loss (Collins, Warren, Neve, McCoy, & Stokes, 2006). As presented earlier, limiting and eliminating strategies do not prove to be effective long term for weight loss and weight loss management.

**School settings**. A number of interventions have been conducted in the school setting for prevention of obesity; some studies, although limited in number, have been conducted in this setting for the treatment of obesity. Studies involving school based prevention and intervention strategies targeting children have been extremely popular in that schools are a place where children spend a great deal of time. These interventions include BMI measurements and school health report cards sent to parents, removal of certain foods from vending machines, curriculum inclusion addressing healthy food choices, having a healthy lifestyle, and increasing physical activity in the school day (Story, Nanney, & Schwartz, 2009). In school settings, school- based programs have demonstrated some effectiveness especially for adolescents (Luzier, Berlin, & Weeks, 2010). A number of studies have addressed increasing physical activity for children in the prevention and treatment of childhood obesity although this topic was rarely focused on in the resent study (Roberts, 2000; Harper 2006; Saelens & Liu, 2007; Waters et al., 2011).

In the present study, when the mothers were asked during the interviews about their child's school settings, the majority of the mothers was very critical of the school setting and mentioned that the school environment was not helpful to their child in regards to healthy eating. They also related that they viewed the school setting as undermining their efforts to promote healthy eating, which for the mothers was actively limiting and eliminating foods. One mother commented, "the

children are rewarded with candy for doing good work in class, this is not good." One mother described the environment in her child's school, "my daughter comes home from school and has wrappers in her book bag from cookies and potato chips, the school vending machine has all of these things." Some mothers diligently inspected the weekly school lunch menus. Three mothers questioned the choices on the lunch menus at school. One mother exclaimed, "I just don't know what they are thinking in making these school lunches."

When the mothers were queried concerning being made aware of their child's obesity through a school health "report card", only one mother mentioned the school sending home a report card with a BMI report. This mother of 10 year-old twins who were both obese commented that she told the school nurse that her children were being followed by their private physician for their obesity. She did not mention any other follow-up by the school in this matter. No other mother mentioned BMI measurements and school health report cards. Importantly, increased physical activity in the school to promote exercise was also not discussed or mentioned by any of the mothers.

**Family-based models.** One newer approach is a model for the management of childhood obesity that uses a family-based approach. This is now considered the "gold standard" for treating pediatric obesity (Skelton, Buehler, Irby & Grzywacz, 2012). There has been some preliminary evidence that greater involvement of parents leads to better child weight outcomes (Faith et al., 2012). In this strategy, interventions and change are delivered through the parents, with or instead of the obese child, therefore emphasizing a healthy lifestyle and not weight reduction. One study with strong outcomes for involving the family in the treatment of childhood obesity demonstrated a 10 year efficacy of a combined parent-child intervention program (Epstein, Valoski, Wing, & McCurley, 1990). This longitudinal study using a randomized

controlled design with a control group examined the effects of a behavioral family-based treatment on the percentage overweight in obese 6 to12 year-old children. The children in the child and parent group showed significantly greater decreases in percentage of their overweight after 5 and 10 years respectively. The results of this study provide support that involving a parent with the child in treatment may enhance the effectiveness of interventions for children with obesity. A number of interventions to date have utilized some variation of this model. This model has evolved and currently some intervention programs are now solely targeting the parents (Golan & Crow, 2004; Golan Kaufman & Shahar, 2006; Moore & Bailey, 2013; West, Sanders, Cleghorn & Davies, 2010).

Many of these intervention studies with parents involve behavioral- based therapies such as stimulus control, self-monitoring, reinforcement of behavior change, modeling of healthy eating behaviors and cognitive-behavioral therapy. The literature highlighted that parents are "agents of change" and primary caregivers should be targeted rather than young children themselves (Faith et al., 2012). Moreover, there have been some conclusions by researchers that the focus be solely on mothers for interventions (Brodsgaard, Wagner, Peitersen & Poulsen, 2013; Han et al., 2010; Kang, Ryu & Park, 2008). The focus on mothers is reasonable in that mothers usually more strongly influence food intake of children than do fathers, and generally mothers may feel more responsible for their children's daily habits; these roles were demonstrated in the *limiting-eliminating* study. In the present study mothers were responsible for buying food and the preparation and provision of meals for their child. The mothers also identified feeling responsible for their child's daily eating habits, and they described a need to be a good role model for them. Many of the mothers believed that their own day to day habits could influence their child's weight in a positive way or negative way.

**Primary care**. Some studies involving clinicians in primary care have focused on techniques for effective communication with parents around weight management. The management of obesity in primary care settings is an emerging area of healthcare research (Faith et al., 2012). In these settings, techniques such as *motivational interviewing* have been addressed in the literature as one important strategy for effecting change (Schwartz, 2010). Motivational interviewing, also known as patient-centered counseling, involves reflective listening, shared decision making and agenda setting. The American Heart Association (AHA) guidelines recommend motivational interviewing to be utilized by clinicians for pediatric weight management (Daniels, Jacobson, McCrindle, Eckel, & Sanner, 2009). In the present study, one mother did explain her experience with her health care provider which could be described as motivational interviewing. This mother gave a vivid description of her visits with her physician. She pointed out that her physician spent the time to listen and talk with her children (10 year-old twins) to motivate them as well as to talk with her regarding how to make positive changes. This mother explained that she was very satisfied with her physician's involvement in caring for her twins.

One important area of concern is that some research found primary care providers to be lacking knowledge to assist in the treatment of obese children. In a study conducted by Spivak, Swietlik, Alessandrini & Faith (2010) with 80 pediatricians and 7 nurse practitioners, the researchers concluded that there were gaps in primary care providers' (PCPs) knowledge of basic childhood obesity facts. The researchers evaluated knowledge, current practices and perceived barriers to childhood obesity prevention and treatment, and even though some of these PCPs rated TV viewing, fast-food consumption and lack of exercise as important treatment barriers, many never discussed these topics with parents during their first year visits. This study

underscores the importance of education not just for mothers but for health care professionals as well. One might speculate that only one or two mothers in the present study sought help from primary care providers, pediatricians, because they were not viewed as knowledgeable in this area or engaging during visits as noted by two mothers.

**Residential treatment**. Interventions for families utilizing residential and day camps have been conducted with some short term results. A well-known day camp program for parents and children known as Children's Health and Activity Modification Program (C.H.A.M.P.) has been replicated in the US as well as Canada (Pearson, Irwin, Burke, & Shapiro 2013). In the present study, none of the mothers mentioned the use of day camps or residential venues as a possibility for their child to attend. Perhaps some of these interventions were not known to these mothers, or for some of the mothers they were not in an economically advantageous position to use these types of resources for their obese children. One mother did mention Weight Watchers as a consideration; however, she cautiously refrained from and agonized over taking this step for fear of putting too much of a focus and attention on weight control for her child, who was twelve years old at the time.

**Pharmacotherapy and surgical interventions**. Pharmacological interventions and surgical treatments such as bariatric surgery are more intensive interventions and are not considered first-line treatments. However these treatments have been used with morbidly obese children. Moreover, the long term effects of medications on growth and development have not been studied adequately.

Currently two medications have been approved by the FDA for limited use in the treatment of pediatric obesity, orlistat ™ and sibutramin™. Currently only orlistat is approved for prescription use in children aged 12 years and older, and sibutramine has been approved by the

FDA for use in adolescents who are 16 years or older. In a *Cochrane* review (www. Cochrane.com) examining controlled trials of pharmacological treatments for obese children, there is evidence for slight effectiveness of these medications when combined with lifestyle interventions and thus researchers claim that a multimodal therapeutic approach should be used. Unfortunately treatment with these drugs is associated with more adverse effects than when employing lifestyle interventions alone. It should be noted that research findings have shown weight regain to be common after the drugs are withdrawn (Spear, Barlow, Ervin, Ludwig, & Saelens, 2007).

Bariatric surgeries such as gastric bypass and gastric banding have been used in children ranging in age from 9-21years (Han et al., 2010). Because of the paucity of data, and the lack of both short-term and long-term efficacy evidence for children and adolescent populations, data from adult studies are considered as surrogate evidence. Pediatric physicians and surgeons are advising that surgery should be reserved for only the most severely obese children, those who are adolescents, and even then should be considered with extreme caution. Gastric bypass procedures are the only form of bariatric surgery currently approved by the FDA for use in adolescents. Currently the gastric band procedure has *not* been approved for use in adolescents less than 18 years of age.

In the L*imiting-Eliminating* study, mothers did not raise the issue of bariatric surgical procedures. Because these procedures are used as a last resort for the morbidly obese child, none of the mothers interviewed described their child as morbidly obese. Their healthcare providers did not mention this as a specific condition or that this could be a possibility for their child in the future. The issue of the use of pharmacological interventions for their child's obesity was also never raised or discussed by any of the mothers in this study.

**Societal action and governmental response.** The US Preventive Services Task Force (USPSTF, 2010) has updated its earlier recommendations from 2005 for clinicians in pediatrics especially in primary care practices. All clinicians are directed to screen children aged 6 years and older for obesity and offer or refer them to counseling and behavioral interventions to promote improvements in weight status. The USPSTF reported that it did not find sufficient evidence for screening children younger than 6 years of age.

Physical activity has been recognized as important in preventing weight gain. The Institute of Medicine Report (2005) on childhood obesity prevention recommends that at least 30 minutes or more of activity be performed during each school day as either physical education classes (PE) or during recess. Governmental agencies, such as the US Department of Agriculture, recommend that children and adolescents participate in 60 minutes or more a day of moderate –intensity physical activity most days of the week, preferably daily. The AAP recommends that 30 minutes of this activity occur during the school day. The CDC recommends that parents can help children meet this activity goal by serving as role models, and incorporating enjoyable physical activity into family life, monitoring the time spent with sedentary pursuits such as watching television, playing video games, and/or using the computer (Spear, et al., 2007). Overall in the *limiting-eliminating* study, only some mothers viewed exercise as important, however it was not considered to be a main strategy or goal. Mothers also did not report exercising for their own health or weight control. Only one mother discussed this matter in detail. She was informed by a friend who had a child who had lost weight through exercise that she should involve her child in some type of sports' activity for successful weight reduction. Significantly, this was the only mother who had been successful with weight loss for her child at one point in the past.

**The "Let's Move" initiative and federal response.** The White House Childhood Obesity Task Force (2010) developed a framework for action for addressing childhood obesity. This task force established by President Barack Obama was in response to the *Let's Move* initiative developed in 2010 by the First Lady, Michelle Obama. This effort by the first lady is a response to the childhood obesity epidemic with a goal of reducing and reversing childhood obesity in a generation. A report released by this task force contains 70 specific recommendations for action for parents at the federal, state and local level and by the private sector.

The recently enacted *Patient Protection and Affordable Care Act* also referred to as the *"Affordable Care Act"* provides for investments in chronic disease management and improving public health. For parents, these recommendations include empowering them by providing more information about nutritional choices, providing clear information to help them make healthy choices for children, improving health care services, and including BMI measurements for children.

The *Let's Move* initiative also includes similar suggestions to empower parents, encouraging healthier foods in schools, increasing physical activity of children and increasing access to affordable healthy foods. Due in part to this initiative, The Healthy Hunger-Free Kids Act of 2010 was the first update in decades for school lunch rules to influence more nutritious school meals. The *Let's Move* campaign has attracted the attention of some popular restaurant chains who have pledged to cut calories and sodium from their menus. The advances in the strategy of restaurant calorie posting, for example, has in some cases impacted foods that are served so that there are alternatives to posted higher fat and calorie items.

Even though addressing childhood obesity is a major public health focus by the federal government, none of the mothers in the *limiting-eliminating* study discussed or raised the issue

of the current *Let's Move* initiative. In contrast, a few of the mothers said they felt isolated and lonely in their quest to find some answers to address their child's obesity and wished there was some type of resource or support group that they could join to help them.

There have been increasing calls to regulate the advertising of unhealthy foods targeted at children. Some researchers recommend that the high obesity rates necessitate a public health *law* that might address this (Mello, Studdert, & Brennan, 2006). The proponents of this recommendation posit that the law can be used to create conditions that allow people to lead healthier lives and the government has the power and the duty to regulate in order to promote public health. The Institute of Medicine (IOM) in their report, "*Food Marketing to Children and Youth: Threat or Opportunity*", highlighted that some forms of marketing increase the risk of obesity. There is a growing body of literature linking exposure to advertisements of unhealthy foods and decisions about their consumption leading to obesity (Batada & Wootan, 2007; Mello, 2010; Mello, Studdert, & Brennan 2006; Nestle, 2006; Oliver & Lee, 2005). Internationally, some foreign governments prohibit or restrict advertising during television programing that is targeted as young children. Federal responsibility for the regulation of advertising in the United States lies mainly with the Federal Trade Commission (FTC). In 1978, the FTC attempted to regulate childhood advertising and initiated a proposal to regulate television for children in which there are advertisements of foods with high sugar content. The commission asserted that advertising to young children is deceptive because children lack the cognitive ability to understand the bias inherent in advertising (Kunkel & Roberts, 1991; Mello et al., 2006). The efforts of the FTC were curtailed by the food, broadcasting and advertising industries. According to Mello et al., (2006), the FTC to date appears to be ideologically disinclined to

pursue regulation in this area. In this study, mothers were not at all aware of the many aspects of public health especially marketing related to childhood obesity.

In summary, the prevention and treatment of childhood obesity has been studied in numerous settings using various types of strategies. Both professional organizations and federal initiatives have been involved in attempts to provide the public with information about health, weight and dieting, and to regulate certain industries. In this study the mothers did not know of these many initiatives or of the unsuccessful strategy of dietary restraint for childhood obesity. Physical activity was only mentioned by one participant as a possible strategy. In areas surrounding the region where data were collected for this study, there have been significant local attempts although not successful as enacted bills, to decrease sugar intake by young children thus focusing on the notion of changing individual choices or supporting changes in food choices I contrast to addressing the environmental issues.

Phase II has been discussed relative to the important core variable of limiting and eliminating and the associated processes of monitoring and surveillance, feeling thwarted and relenting. In the next sections Phases I and III are discussed relative to the literature reviewed.

**Phase I Realizing: Conceptual Category Recognizing**

Within this first phase of realizing, the mothers recognized obesity in their children. This realizing for some occurred after a period of denial. Some mothers described when they first noted or recognized that their child was overweight. Believing this overweight state to actually be a problem was another dimension of realizing. Recognition has been studied as an influence on behavior change and intervention for obese children. Culture and ethnicity also influence not

only perception of childhood obesity but the determination of whether or not the obesity is problematic or is a health concern.

A number of studies have been conducted examining maternal perceptions and behaviors related to a child's obesity. A meta-synthesis conducted by Doolen, Alpert, & Miller (2009) examined studies from several countries and discovered that the majority of parents, specifically mothers, failed to accurately assess or perceive the weight of their child, whether the child was at risk for or was actually overweight. This was especially true if the parents were overweight themselves.

There is a considerable amount of research literature on mothers underestimating their child's weight status in which the mothers do not consider their child's obesity to be a problem. (Baughcum, Chamberlain, Deeks, Powers, & Whitaker, 2000; Eckstein, Mikhail Ariza, Thomson, Millard, & Binns 2006; Howard, 2007; Lundahl, Kidwell, & Nelson, 2014; Southwell & Fox, 2011; Tschamler, Kelly, Conn, Cook, & Halterman 2006).

There is a paucity of studies published on childhood obesity and maternal recognition in the school age child and most of what has been studied on this aspect involved pre-school children One study examining maternal perceptions of their child's obesity with preschool children was conducted by Baughcum and colleagues with 662 pairs of children and mothers of varying socioeconomic status, education levels, race and geographic locations in the US. The mothers were also asked to identify their own weight status as well. In this study more than ninety percent of the mothers correctly identified themselves as overweight, but for their children, less than twenty-five percent correctly identified their children as overweight. For the mothers who did correctly identify their children as overweight, only two-thirds considered it to be a health concern.

One of the few studies examining maternal perceptions of a child's obesity investigating school age children was conducted by Southwell and Fox (2011). These researchers using Grounded Theory Methodology and interviewing 12 mothers who had children between the ages of 6 and 13 revealed two over-arching core categories identified as "good mum/bad mum" and "resilience." The researchers uncovered that the mothers' perceptions of their child's weight reflected how they perceived themselves and how they were perceived by society. For these mothers the weight of their child indicated their worth as a mother, and how they perceived themselves to be a good mom or a bad mom. If the child was obese that believed they were not fulfilling their maternal role. The researchers concluded that the mothers' perceptions of their role in childhood obesity may influence maternal *misperceptions* of overweight in their child. The mothers in this study minimized the child's obesity and downplayed its importance as a defense against feeling responsible. It was interpreted as a way to protect their own self-esteem as a mother. Not recognizing overweight as a problem or delaying such recognition has been found by other researchers when examining mothers with overweight and obese children.

There are some similarities between the Southwell and Fox's (2011) study findings and the findings in the present study. Upon their own reflection, some of the mothers in the present study related somewhat of a delay from the time they saw their child as obese and the time when they recognized this as a problem of importance. One mother in the present study saw her child was obese, but she hesitated doing anything, not truly accepting that there was a problem. This mother of three in which her youngest child was the only child who was obese said, "I wouldn't say I was in complete denial, but it was oh, she is so cute the way she is." Another mother remarked, "I saw she was obese but I didn't see it." Even though there were some similarities between the findings in the current study and those of Southwell et al.'s study, there was one

significant difference in that their study findings reported a belief by the mothers that they were *not* responsible for their child's weight, believing the child's obesity was due to heredity. In contrast the mothers in the current study mentioned repeatedly throughout the interviews that they were to blame for their child's weight and they felt very strongly in this belief. This emerged as the subcategory identified as self-blame in phase one.

Jackson, McDonald and Mannix (2005) in a study reported earlier, with eleven mothers undertaken to understand maternal views about their child's weight. The mothers came to this realization that their child's weight was a concern. For some mothers this concern was triggered by negative comments from friends and relatives or this realization was triggered by a particular event such as a class photo and noticing their child was larger than their peers, or being told that their child was outside the percentile chart by a health care professional. This realization for the mothers was a gradual realization that their child's weight was a matter of concern for them. This finding was also identified in the present study. One mother of four whose first child was the only child who was overweight came to a gradual recognition through comments by friends. In recognizing that her child was obese she even inquired of her doctor if she should be concerned. This mother explained how she gradually came to a realization through comments by acquaintances:

> Once or twice people have just told me you know your daughter's overweight. You need to watch her otherwise she's gonna have a hard time socializing with people and kids are going to tease her. So you know I got a few of these comments… I'm not denying she's not overweight, you know I got a few comments, I know it's my responsibility.

Hodges (2003) noted that parental recognition of obesity in children is an important factor in effecting change. However, once a mother recognizes her child is obese, the mother does not always identify this factor as a problem. Some studies have shown that even when mothers acknowledge obesity in their child, they do not consider this to be a health issue (Reifsnider et al., 2006; Ariza, Chen, Binns, & Christoffel, 2004; Jain et al., 2001). In the current study, the reasons for this delay in recognition by the mothers of their child's overweight remain unclear. However, some cross-sectional and qualitative research studies have suggested that mothers evaluate overweight in their child not in terms of the standardized growth charts utilized by health care professionals, but in terms of whether or not their child is being teased about their weight, or if the child has some limitations in physical activity (Crawford, Timperio, Telford, & Salmon, 2006; Jain et al., 2001; Lundahl, Kidwell, & Nelson, 2014).

A qualitative study, described earlier (Jain et al., 2001), was conducted using 3 focus groups of 18 low-income mothers of pre-school children to explore the mothers' perceptions regarding how they determine when their child is overweight, and what some of the barriers were to preventing and managing their child's obesity. In Jain et al.'s study, the mothers expressed that they were more likely to recognize their child was overweight if they were teased at school or were developing limitations in physical activity, not by using the health care professional's growth charts. The mothers did not accept the definition of healthy weight of their child by measurements of standardized growth charts as relied upon by healthcare professionals. In fact, these mothers believed that the growth charts were not relevant for their children. This frequently cited study in the childhood obesity literature did have some limitations. In the analysis and interpretation of the data, the analysis of the focus group data was not clearly described in the study. The use of focus groups to explore perceptions and experiences can be

limited in that a group setting may hinder some of the participants from expressing their own or personal views. This study had a very small sample and participants were low-income African American mothers from an urban setting, making the findings les generalizable. Nevertheless, despite these limitations, the findings were different from those in the present study in that growth charts were not used and the majority of the mothers described and recognized their child was overweight even though not all of them were concerned about it as a health problem. Also, and noteworthy as a comparison, the participants were mothers of school-aged children in contrast to Jain's study of mothers of preschoolers. Mothering a preschooler who is obese and mothering a school age child who is obese may have important distinctions (Crawford, et al., 2006). Some researchers have identified that mothers of older children ages 10-12 are more likely to identify their child as overweight or obese and are more concerned about their child's weight status when compared to mothers with children who are younger such as at age's five to six. One rationale is that mothers of younger children often assume their child will "grow out of it" (Crawford et al., 2006).

Maternal awareness and recognition of their child's obesity has often been noted as a significant factor in mothers' changes in their own behaviors toward successful outcomes in reducing or eliminating their child's obesity. However as expected, studies have concluded that recognition by the mother may not be enough to change maternal behaviors and habits. Neumark-Sztainer, Wall, Story, and van den Berg, (2008) investigated two groups of parents—those who perceived their children to be overweight and those who did not (N= 289). They further sought to determine whether this recognition made a difference in adolescents' weight outcomes and parental behaviors. The BMIs of the adolescents were tracked twice over a 5 year period. The researchers found that parents of overweight children who perceived them to be

overweight *were not more likely* to engage as parents in behaviors to encourage healthy weight management when compared with those parents who did not perceive their child to be overweight. Interestingly, the researchers found one important difference for those parents who did recognize the obesity in their children: these parents were more likely to encourage their child to diet, and the encouragement to diet increased the risk for overweight at the five year follow-up. Moreover, this association was statistically significant for girls and was marginally significant for the boys. Furthermore, the parental encouragement to diet predicted weight gain over time. Some weaknesses were noted in the study's methodology: the attrition rate from time one to time two was substantial and the measures used to track the BMI in the adolescents were different between time one and time two. Nevertheless, the important finding of the effect of food restriction on weight gain cannot be discounted despite some of this study's limitations.

In reviewing cross-cultural research and childhood obesity, it is evident that childhood obesity is not universally recognized as a problem (Caprio, Daniels, Drewnowski, Kaufman, Palinkas, Rosenbloom, & Schwimmer, 2008). In fact, obesity may be evaluated as a source of good health, beauty and affluence in that some cultures do not value thinness as the ideal image of health and beauty. Acceptance of larger body sizes has been noted to be more common among certain ethnic and socioeconomic groups. In certain groups, mothers may worry that their child is not getting enough to eat and they thus believe that an increase in weight for their child was the best marker of a healthy baby. In one study with a focus group using a sample of low-income mothers to explore their feeding practices, mothers identified that a healthy baby was an obese baby (Baughcum, Burklow, Deeks, Powers, & Whitaker, 1998).

Senatore's (2002) dissertation examined cultural beliefs and values that influence perceptions of African American (AA) mothers regarding their own obesity and that of their

daughters 'obesity. Using a survey, based theoretically on the Health Belief Model (HBM), and a sample of 397 mothers and their daughters, 5-19 years of age, she concluded that the participants associated a heavier person with self-confidence, power, and a sense of well-being. Some of the mothers in this study were obese and the mothers who had a high BMI believed that they were at the proper weight; furthermore, they did not view overweight as unattractive. The participants with a high BMI also did not believe that they were in poor health, and did not believe they were at risk of developing heart disease or diabetes. This study underscores the view that health behaviors and perceptions can be influenced by culture. Some studies point to these same perceptions that have been noted among other populations such as those of Hispanic cultures (Ramirez, Gallion, Despres, & Adeigbe, 2013). This cultural aspect may help explain in the current study the reported delay in the initial realization of their child's obesity and identifying it as a health problem for their child. The cultural background and ethnicity of the participants in this study were from diverse backgrounds (see Appendix F).

In summary with respect to Phase I and findings from other studies, many similarities are noteworthy especially perceptions and awareness of mothers about their child's obesity. Maternal awareness and recognition of their child's obesity has often been cited as a significant factor in mothers' changing their own behaviors for successful outcomes in reducing or eliminating their child's obesity. However as expected, studies have concluded that recognition by the mother may not be enough to change maternal behaviors and habits. A delay in recognizing obesity as a problem for their child may have been in part related to cultural influences regarding acceptable size for children specifically at school age when some mothers in this study believed their child would have the chance to 'grow out of this."

**Phase III: Doing Something, Managing Day to Day and Protecting and Building the Child's Self Esteem**

During Phase III, mothers described "doing something" often implying "at least" in their new role of mothering an obese child. This may have been related to the failure of many of their limiting and eliminating strategies. The mothers were committed to their children's wellbeing and were determined to provide their child with "something" to prevent any more weight gain or to reverse the obesity event Hough in some instances, obesity was viewed by them as the result of emotional problems rather than physical health factors.

*Managing day to day* took on different aspects for these mothers regarding how they addressed the problem. Managing day to day involved some creative strategies the mothers implemented to ensure they were doing the best they could. Even though the mothers explained that their major strategy, limiting and eliminating had very little impact on their child's weight, they were determined to do something. Only one mother contemplated increasing physical activity in their child as a means of weight control, even though for more than forty years there has been persuasive and compelling evidence that changes in activity levels strongly influence weight regulation (Bennett & Gurin, 1982). There were, however, some attempts at activity that were resourceful such as increasing the child's activity by dancing at home in the evening or using video exercise programs on the TV. However these were not stressed as a main strategy for their child's obesity, nor were they offered in a structured or ongoing way.

The mothers employed several behavioral strategies in their managing day to day. Some of the strategies initiated by the mothers were creative such as developing a snack drawer just for their child, so their child could feel they had special treats just for them. One mother put fresh-squeezed lemons in water in the refrigerator for her daughter to drink instead of soda. Two

mothers set up fruit bowls on the kitchen table for the children to grab when they came home from school rather than searching for other types of snacks. Some mothers looked for successful individuals, celebrities for example, who were overweight so they could use them as role models for their child to demonstrate that success could be achieved if overweight. One focus for all of the mothers was protecting and building their child's self-esteem. The mothers in this study were motivated to protect their child from actual or potential teasing, bullying or stigma.

Obese youth in the US experience weight-based stigma with children reporting stereotyping, bias, bullying and discrimination from peers as well as from others (Mustillo, Budd, & Hendrix, 2013; Puhl & Heuer, 2010). The mothers in the *limiting-eliminating* study were acutely aware of this fact and were very conscious to do something to protect their child's mental health and emotional adjustment. The mothers advocated for their child with teachers, relatives, parents, or their peers who might stigmatize or bully their child. Some mothers reported bullying by their child's peers. In the literature, many of the studies examining childhood obesity and its psychological impact address how obesity affects a child's self-esteem (Asthana, 2012; Janssen, Craig, Boyce, & Pickett, 2004; Kalra, Sousa, Sonavane, & Shah, 2012; Latner & Stunkard, 2003; Strauss, 2000). In a qualitative study conducted by Andreassen, Gron and Roessler (2013) twelve mothers and two fathers when interviewed revealed that weight loss for their child was a pre-condition for their child's emotional well-being and all of the parents' strategies were based on not having their child feel stigmatized. In this study, the parents mentioned their primary and most important mission as a parent was to protect their child's self-worth and all their strategies revolved around this. All the parents desired their child to lose weight but were concerned about hurting their child's feelings when introducing this topic or related strategies. The parents in this

study further said they hesitated to enroll their children in organized sports because they feared the child would feel inadequate and stigmatized. In this same study the parents when their children were younger were careful not to talk about weight and weight loss with their overweight children while they were alone with them but especially in front of slender siblings. In this aspect of protecting their child's self-esteem and emotional well-being the findings in this study were similar to the findings of the current study.

The mothers in the present study talked to teachers, other children, their own mothers or siblings. The mothers were not only concerned about this in the present, but they also had a long range view for protecting their child. A few mothers mentioned incidents that occurred in which their child was bullied or teased in school and they were concerned about this occurring in the future. There was some ambivalence with some of the mothers between taking action related to their child's weight and ensuring that this would not affect his/her self-esteem. One mother was hesitant to encourage her child to be involved with sports activities as she feared her child would be embarrassed because of her size. Unlike the Andreassen et al.'s study, some mothers in the present study mentioned they did not discuss the topic of weight and self-esteem openly with their child, but other mothers did. The mothers also said, in the interviews, that they believed weight loss was related to self -confidence and connected to their child being happy, having more friends, and getting along with their peers. Some family intervention reports such as one by Pearson, Irwin, Burke, & Shapiro (2013) claim to use a comprehensive approach to address a child's obesity which includes some aspect of enhancing a child's self-worth and self-esteem. The Institute of Medicine 2005 report, *Preventing Childhood Obesity* addresses obesity and stigma and the importance of focusing on this aspect of childhood obesity.

## Summary of Discussion

Mothering an obese child as a process is an understudied area of inquiry. This discussion highlighted some similarities of this study's findings with the published research findings and theoretical literature as well as some differences.

When applying the theory in nursing, Becoming a Mother (BAM) by Mercer (1985) to the current study, one of the major points in Mercer's theory is competence in the role of mothering. Competence allows the mother to successfully achieve maternal role attainment. The mothers in the current study experienced self-doubt concerning their role in mothering of their obese child. They were uncomfortable in their new identity in this mothering role. However as in new a mothering role, the role of caring for an obese child was essentially new to them and competence may be viewed as developing over time. Other identified roles of the mother in a child's weight and eating behaviors such as protector and enforcer were similar to the study's findings. However the role of self -regulator was not a role enacted by mothers in the present study. In fact the opposite strategy, strict limiting, that did not include self-regulation which implies as a balancing strategy, was the primary one used.

While eliminating and limiting proved to be unsuccessful as a strategy, mothers in the present study continued to use this strategy. The strategy of limiting and eliminating is based on the principle of dieting and dieting restraint identified in the literature. It is well documented in the literature that dieting and dietary restraint is not an effective means of weight loss and control and in many studies cited, actually led to weight gain. The current study builds upon the extant literature in medicine and the social sciences involving parents and the use of restrictive feeding practices and expands an understanding of the mothers' role with this practice. As of this date,

no other qualitative study focusing solely on mothers has revealed this aspect and process of limiting and eliminating in the role of mothering an obese child, although some studies do discuss control and monitoring.

Surveillance was a unique conceptual category that emerged in this study as it went beyond monitoring and control cited in other studies as strategies. The relenting and feeling thwarted were also unique processes more clearly defined and described in the present study than findings noted in other studies. This adds a dimension to the role that influences the failed strategy of eliminating and limiting and the accompanying frustration the mothers expressed. The present study also supported research findings that described family members as often thwarting the mothers' strategies. This especially has implications as research and clinical interventions move toward more family-centered treatment strategies.

The third phase of this study was identified as *doing something*. Mothers were creative in some attempts that were not eliminating and limiting such as substituting fruits as snacks. A major focus of the mothers in their daily life was protecting and building their child's self-esteem. Studies on childhood obesity and the psychological impact of this has identified that children who are obese are at increased risk for stigmatization and marginalization, and are more likely to be victims of bullying. A number of studies described in the discussion show that parents place a significant emphasis on strategies to help protect their child from the negative effects of bullying due to their weight status. These findings are similar to the findings in the current study. Some of the mothers in the current study lamented how their children were victims of bullying, and they placed importance on protecting their child to promote their psychological well-being. To that end, they talked to teachers, relatives or with their child to mitigate any negative consequence and impact their child's weight status would have on their emotional state.

They looked for role models in books or on the internet to encourage their child hoping to build their self-esteem. If the child did not have any negative experiences they would seek out opportunities to communicate especially to teachers in the school setting to enlist their help if their child potentially might be a target for these experiences.

Given the contemporary interventions for childhood obesity and the present state of the science on successful outcomes, it is apparent that the mothers in this study lacked a clear understanding of these. Mothers persisted in using the only strategy they knew, even though it was not working, because they did not know what else to do. It is significant that information regarding obesity prevention and treatment did not reach these mothers. Few resources were available to assist them in understanding what might work. They continued along the idea that personal food choices alone rather than any environmental focus were the cause of the obesity and therefore the solution. To date the research literature identifies that physical activity coupled with dietary modifications can have some long term success with childhood obesity and that food restricting along with the associated behavior of surveillance are not effective.

## Implications

This study on mothering an obese child adds a new and undiscovered dimension to the role of the mother in this context. To help prevent and treat childhood obesity, a greater understanding of the maternal process in childhood obesity is needed. A multitude of studies have been conducted on childhood obesity often from the perspective of professionals, an important starting point for identifying relevant factors; however, identifying the mothers experiences will enrich the professionals' repertoire when working with mothers and their obese children. There are a number of specific implications regarding nursing and health care professionals 'practice,

nursing education and policy strategies in the following sections as well as recommendations for further research.

**Nursing Practice**

The process identified in this study revealed important conceptual phases that mothers confront in caring for their obese child. Nurses, physicians and social workers work in settings in which they encounter mothers of overweight children. Nurses play an important role in health promotion, health education and disease prevention. It is vital that health care professionals understand the mothering role and mothers' experiences.

The mothers in this study were not aware of alternative and more successful approaches to assist their obese child or aware of treatments they might have sought. This lack of awareness on the part of the mothers has implications for clinicians in primary care. It would be valuable and beneficial for physicians, and nurses to involve mothers as well as the whole family (not just the child) in addressing the problem of childhood obesity to educate mothers and family members' about the current and most successful approaches that are available.

Throughout the study it became evident that the mothers were invested in helping their child. Nurse Practitioners in Primary Care and Pediatric Primary Care are in a unique position to educate mothers on strategies that would be helpful. Clinicians in primary care can use the findings from this study when conducting health interviews with mothers to gain an understanding of the mothers' experiences and extract important information to assess the mothers' knowledge regarding addressing her child's obesity. First, clinicians must themselves be knowledgeable about the various treatments and their efficacy. As noted earlier in the study undertaken by Spivak, Swietlik, Alessandrini & Faith (2010), few pediatricians were knowledgeable about obesity.

The most important area for practice implications centers on restricting food and its deleterious effect of weight gain rather than weight loss. Education programs for parents need to focus on the ineffectiveness of strict dieting. Physical activity should be encouraged and suggesting family participation in this has been shown to be important.

In the school setting, school nurses are in an ideal position to talk to mothers as they have been identified in the literature as the key person who shapes the child's eating habits while he/she is young. Utilizing the findings from this study, nurses in school settings can be instrumental in screening all children for overweight and educating mothers and their children in sound methods for preventing and treating their child's obesity. Awareness of alternative strategies especially physical activity was a missing approach for mothers in the present study. The school nurse can intervene by developing and establishing physical education programs in schools collaborating with the physical education (PE) departments and teachers, as well as meeting with mothers individually to assist them with more effective physical activity strategies for the home environment. The school nurses' role should include working with parents and teachers around education for weight loss as well as on bullying, and the awareness that obese children are probable targets for bullying.

**Health Policy**

Over the past several years at the federal, state and local level, policy proposals have been suggested and introduced to combat childhood obesity (Brownell, Schwartz, Puhl, Henderson, & Harris, 2009; Clark, Goyder, Bissell, Blank, & Peters, 2007; Freiden, Dietz, & Collins, 2010). These proposals include taxing sodas and snack foods, setting mandates for school lunches, and instituting standards for physical education within schools. Mothers in the current study expressed their concern about the choices on the school lunch menu, and said it was a deterrent

to helping their child eat healthfully. Nurses can be active in lobbying for policies concerning healthier choices for school lunches, supporting the White House agenda for healthy school lunch programs.

Policies should be implemented at the state and local level to put into practice programs that will increase physical education in schools especially at the primary and secondary levels. The mothers in this study did not mention that physical activity was conducted in their child's school, nor did they express placing a high priority on this strategy. Physical education has been decreasing or eliminated in a number of school districts across the nation because of the increased focus and attention on academics with only a modest focus on physical activity; primarily this was the result of the enactment of " No Child Left Behind "education legislation. However, some school systems in some states in the US do have such a mandated focus Nurses in professional organizations can use the findings from this study in drafting and lobbying for legislation to increase physical education in more of our nation's schools.

Policies at the federal level also need be developed to implement massive public health campaigns to inform clinicians as well as the general public regarding recent research findings for successful treatment of childhood obesity (Brownell, Thompson, & Ballard-Barbash, 2009). The message of dieting and its ineffectiveness as a strategy did not reach this sample of mothers, even though there is sixty years of research identifying the futility and uselessness of this approach. The mothers did not understand the conditions, contexts, and consequences of their strategies. Information that does not reach the family level cannot impact significantly on childhood obesity treatment and prevention efforts.

There is little or no policy in this country regarding limiting advertising that may be detrimental to shaping healthy lifestyles for children. Other countries have advanced this notion

especially restricting food ads on television during child-oriented television programs. The influence of advertising on children's food choices has been well studied for a number of years (Mello, 2010). These studies have shown for example that children who viewed food advertisements and when they then accompanied parents while food shopping were more likely to influence parental purchases with particular emphasis on the advertised product (Ben-Sefer, 2009; Mello, 2010). Nurses at the policy table especially at the federal level can be influential in introducing and lobbying for legislation limiting foods advertisements that could be detrimental to children especially during prime TV viewing for them. Lobbying for a nationwide campaign regarding food advertisements might strengthen and garner legislative and public support to what has already been accomplished in the restaurant industry in some cities. Lobbying efforts through professional nursing organizations such as the American Nurses Association (ANA) and the American Association for Nurse Practitioners (AANP) could provide a strong lobbying voice concerning advertisements from the food industry and restaurants for caloric and nutrient labeling.

**Nursing Education**

Nursing education programs at all levels from pre-licensure through graduate levels need to incorporate the topic of childhood obesity into curricula this is a relevant and critical topic to educate future nurses, nursing leaders, administrators, policy experts, academicians and researchers. The findings from this study can provide an important contribution that is useful for nursing education. This study provides a theoretical perspective and sheds some light on the role of the mother in this process of mothering a child who is overweight. Nursing faculty in academic settings can work towards including current research findings on the prevention and treatment of obesity into curricula especially in community

health, maternal health medical-surgical and pediatric courses. Schools of nursing can design and incorporate into their maternal health and pediatric courses issues related to how to manage a child who has a weight problem. Important areas to include for maternal-child health nursing related to childhood obesity could focus on content related to specific maternal behaviors which may have a positive or negative outcome for healthy children. From the findings of this study important content to teach should emphasize that the strategy and behavior of dietary restraint used by mothers is counterproductive.

Significant teaching content to include in pediatrics regarding growth and development and childhood obesity could highlight that children tend to choose the foods from which they have been restricted, as opposed to the foods that they have been allowed, and thus may overeat the restricted food. All of these content areas have been demonstrated through research, and the conceptual model that emerged from this study builds upon this evidence concerning dieting and dietary restraint and maternal behaviors.

Nutrition is a course in which all prelicensure students enroll. The dangers and ineffectiveness of dieting and dietary restraint for obesity can be incorporated as important content to teach as well. Other important concepts to include in nutrition courses could focus on how to maintain good weight regulation using a non-diet approach towards health which includes healthy eating and exercise rather than a restriction of food intake. Diabetes and its development is an important topic for adult health nursing courses and especially mothers need to be educated regarding this and their own health and its effect on their children's health.

For course development in maternal-child health and pediatric nursing, faculty can provide opportunities for students to engage with the issue of childhood obesity through specific projects. Assignments can be allocated to students to develop projects for group education for mothers in

pediatric outpatient clinics or in the community setting utilizing public health clinics or schools. Students can develop teaching tools such as brochures or flyers and give presentations in these types of settings. These educational teaching tools should focus on specific strategies that are known to be effective in treating childhood obesity or preventing it. The use of outpatient clinics and community settings has the distinct advantage in assembling mothers which could be an opportunity for the mothers to form support groups. Some of the mothers in the current study expressed that they wished there were some type of support group for mothers of overweight children so they could come together and discuss ideas and strategies with other mothers having the same experiences. These types of settings would be ideal to develop and facilitate support groups for mothers. Nursing students as well as faculty could be instrumental in developing, facilitating and moderating these support groups.

The mothers in this study did not mention any of the resources and supports that are currently available to them such as the "Let's Move" initiative and often pointed out they wished they had additional resources. With this vast amount of information and resources currently available to mothers in this process, nursing students in courses on public health and community health need to make known these resources available to mothers which they can easily retrieve through the internet. Wider dissemination of the availability of these resources is one of the top agendas of the "Let's Move" campaign.

Using more innovative and novel approaches for education, with the greater use of technology in schools, nursing students can develop computer programs and disseminate findings of effective treatments for childhood obesity through technology such as telemedicine. Some researchers utilized the use of telemedicine technology to implement a behavioral intervention for childhood obesity to families in a rural area that otherwise may not have had

access to this type of program (Davis, Sampilo, Gallagher, Landrum & Malone 2013). The use of telemedicine technology can reach larger numbers of mothers and families across the nation. Noteworthy, statistics have revealed that families from rural communities tend to have higher obesity rates than their urban counterparts.

## Recommendations for Further Research.

This grounded theory study provided the perspective of the mother caring for an obese child and builds upon the knowledge conducted by other researchers. The beginning conceptual understanding of the strategy of limiting and eliminating and the impact this had on the mothers' role needs further investigating. Additional studies could examine the cited categories in this study and use them to identify a substantive theory.

Importantly, theories of mothering often do not capture mothering as a process throughout a child's life. Expanding on Mercer's theory would be an important disciplinary goal. Many studies exist on mothering children of differing ages with various problems and challenges and these might be synthesized to create more mid- range theories on the mothering role.

From the results of this grounded theory study several hypotheses could be generated. A hypothesis focused on how information is best delivered to mothers of obese children is an important one to test. Mothers were at a loss in finding specific help and resorted to outdated media information.

. The use of current health theories such as the Health Belief Model (HBM) could be used to examine some of the concepts from the current study. One finding from the current study was conceptualized as "feeling thwarted." Researchers could examine this conceptual finding along with "perceived barriers" a construct from the HBM, to determine if it overlaps with the

concept identified in the current study. Researchers have identified that a common direction in research to determine a usefulness of a model, is to combine the model with other models and frameworks. Researchers might examine the relationship between these concepts to evaluate the unique contribution of this model's concept to this area of inquiry.

For qualitative investigations, researchers could use focus groups of mothers with school-aged children who are obese providing data for an exploratory descriptive study to examine feeding practices, knowledge and nutritional beliefs of mothers. This study did not address beliefs and their importance. How much culture influences beliefs about obesity treatment must go beyond published studies that only address awareness from cultural perspectives.

The findings from this qualitative study could direct researchers of quantitative studies to develop tools or surveys for interviews especially at the assessment phase in obesity treatment. Relying on one type of problem, overeating, and using one strategy, decreasing food intake, limits the individualized care of obese children. The mothers' descriptions of their experiences and behaviors should be a foundation for items in such a tool so that eating and feeding are not the only considerations Assessment tools are the first step in individualizing care and such instruments should be developed and tested clinical settings, that could reveal a real picture of the mother's experience.

## Conclusions

This study sheds light on the maternal process of mothering an obese child. From this study several conclusions can be drawn. Collectively the mothers in this study revealed that because of a deficiency in current health information, they were using ineffective mothering strategies to address their child's obesity and were not confident in this new role for them. The mothers wanted to help their child; however they did not have the adequate knowledge to assist their

child. Paradoxically, the chief strategies they were using, limiting and eliminating, were promoting behaviors in their children that they as mothers were trying to prevent. Knowledge translation should include developing ways to reach mothers with clear messages concerning effective and important strategies in order for the mothers to understand their role in this process and to help them improve their child's health.

Another conclusion that can be drawn from this study is that the mothers did not comprehend the severity of their children's obesity and the chronic nature of this diagnosis. Significantly, few mothers understood the health risks and consequences associated with increased weight gain in their young children.

There is a need, evident from the literature review and these study findings, to continue to work toward a substantive theory on the process of mothering a child who is obese. This beginning conceptual understanding from this study needs further linkages toward a process of mothering an obese child.

An important finding from this study is that the current theories of mothering might not be useful in working with mothers who have an obese child. More research is needed to build upon these theories examining the role of the mother and this process.

Many interventions aimed at preventing and treating childhood obesity have been school-based with an emphasis on the child and the notion of individual choice as the sole cause of obesity. The role of the mother and family, in preventing and treating childhood obesity and the role of the environment, overlooked in the past, are increasing areas of focus and interest. Researchers, policymakers, and practitioners need to understand the role of the mother in childhood obesity in order to implement more effective interventions and policies.

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## Appendix A

## Sample of Flyer

### Are You the Mother Of A Child

### Who is Overweight?

**The role of a mother is crucial when a child is overweight. Carol Soto RN, PhDc, a doctoral candidate in nursing at Adelphi University is conducting a study and wants to hear about your experiences with your child. You are invited to participate in a voluntary research study about mothering that will involve a face to face interview.**

Criteria for participation:

- You must be a mother of a child you perceive to be overweight who is between the ages of 5 to 12.
- You must be able to speak and understand English.

To participate in this study you will be interviewed for about one hour. To thank you for your time and effort you will be given a $10 metro card and $20 at the end of the interview.

If you are interested in participating in this study please contact

Carol Soto(718)475-2128 or mothersandchildren512@gmail.com

All information is confidential.

## Appendix B

## Adelphi University Informed Consent

**IRB Protocol Title:** The Process of Mothering an Obese Child

**Principal Investigator:** Carol A. Soto

**Faculty Advisor:** Dr. Jane H. White

**Research Purpose**

The purpose of this study is to explore the process of mothering an obese child from the mothers' perspectives.

**Description of the Research**

The goal of this study is to understand the process of mothering an obese child. As a mother with a child or children that is overweight, your perspective is important to understanding this process. A doctoral candidate student from Adelphi University will conduct a one hour interview with you that will be audio taped and recorded. The researcher may write notes while the interview is being conducted.

The interview will consist of asking you questions concerning mothering and your children. All the information that you give the researcher is confidential. You may withdraw from the interview and study at any time. You may choose a name to use (pseudonym). Your name will not be used on any of the forms or in the interview that will be tape recorded.

**Potential Risks**

The primary risk to participants is possibly feeling stressful due to disclosure of sensitive information. You may find it upsetting to talk about your experiences. If you express you are feeling stressed or anxious, you can be referred for counseling with a health professional. Names of professionals experienced with counseling will be identified before the study begins.

**Potential Benefits**

Possible benefits of participants may include the therapeutic benefits and comfort of telling your story and expressing your experiences in this situation.

**Costs/Compensation**

As a token of appreciation for participating in the study, all participants will receive a $10 metro card and a $20 stipend.

**Contact Person**

If you have any questions at any time about this research, or want to discuss any possible study-related problems or injuries, please contact Carol Soto at (347) 869-3412.

**Confidentiality**

Your confidentiality and anonymity is ensured as you will be introduced by first name only and a made up name (pseudonym) will be used in the study. You are assured of confidentiality as the researcher is familiar and experienced with the concept of client provider confidentiality and will assure participants that the conversation will be kept private. Transcripts of the interview will be kept in a locked cabinet in the researcher's home.

Your identity as a participant in this research study will be kept confidential in any publication of the results of this study. Your name or any other identifying factors will not appear on written transcripts, reports or any published papers. However quotations about your experience from

your interview may be used anonymously in the reports of the study. The information obtained during this research (research records) will be kept confidential to the extent permitted by law. However this research record may be reviewed by government agencies (such as the Department of Health and Human Services), the agency sponsoring this research, individuals who are authorized to monitor or audit the research, or the Institutional Review Board (the committee that oversees all research in human subjects at Adelphi University) if required by applicable laws or regulations. The material will be maintained for **up to 7 years.**

**Voluntary Participation**

Participation is this study is voluntary. If during the interview you become uncomfortable, you have the option to decline to answer the question, reschedule the interview, or stop and withdraw from the study. You can withdraw from the study at any point, including after the interview is finished. If you decide not to participate, this will not affect your involvement or care at any health center, school or program.

A signed copy of this consent form will be given to you.

**Institutional Review Board Approval**

This research has been reviewed and approved by the Adelphi University Institutional Review Board. If you have any questions, concerns or comments, please contact Dr. Carolyn Springer, Chair of the Adelphi University IRB, at 516-877-4753 (springer@adelphi.edu) respectively

**Signature**

*Person Obtaining Consent*

Print Name_____ Signature_____Date_____

*Study Coordinator*

Print Name_____Signature_____Date_____

*Study Participant*

Print Name_____Signature_____Date_____

**Consent for video or audio recording**

My participation in this research project will be audio- recorded. I consent to the recording of my voice. The recording will be used for research purposes and the data will be treated in the same manner as the aforementioned data.

Signature of Participant _____

## Appendix C

## Demographic Questionnaire

Name (Pseudonym)_____

Age_____

Country of origin where you were born_____

If born outside of the US, how long have you lived in the US?_____

What is your marital status?_____

What is the last grade of education you completed?_____

Number of children_____

Ages of children_____

Number of children with an obesity problem_____

Grade in school of child/children with an obesity problem?_____

Family history of obesity and whom?_____

## Appendix D

## Semi-structured Interview Guide

**1. Tell me when you first became a mother?**

**Potential probes**

- How did you know how to be a mother?
- What is the meaning of motherhood for you?
- Tell me about the responsibilities of being a mother
- Describe what might be difficult about being a mother in general
- Who helps with these difficulties?
- What are the joys of being a mother?

**2. Tell me the story of your child's obesity problem?**

**Potential probes**

- What did you ( feel, think, etc.) do when you first became aware of the problem ?
- What was difficult about this diagnosis, problem ?
- What supports did you receive?
- What is your day to day life like as a mother of an obese child?
- (If other children): how is this different from mothering your other children ?
- How are things now compared to your first awareness? Why?
- Other obesity in your family? Children? Past experiences?

**3. Tell me about mothering your obese child?**

**Potential probes**

- How long has your child been obese?
- What did you expect this role would be like?
- How do you feel about mothering an obese child?
- What barriers do you feel you experience?
- Challenges?
- What supports do you have in this process?
- What is the most difficult aspect of or about this process?
- What would help you in this process?
- Experiences and health: Psychological and Physiologic

**4 .Do you receive healthcare for your child? What does this consist of?**

**Tell me about your experiences with health care for your child?**

**Potential probes**

- How do you see your mothering related to health care and the obesity of your child?
- Describe your relationship with your health care provider?
- Has there been anything that has been problematic ?
- What are some of the difficulties you face?
- How has health care been helpful ?
- What do you want to be different ?

**5. What are your main concerns related to your child's obesity?**

**Potential probes**

- How do you handle your concerns?
- How does it affect you – your health? Your relationships? Work?
- Are there limitations to your life and living?

**6. Do you think your child is concerned about his/her obesity problem?**

**Potential probes**

- What are some comments your child has said?
- What is your child's experience at school?
- Has your child mentioned any specific incidents or experiences he/she encountered due to his/her obesity problem?

**7. Tell me about supports or resources that have helped you ? eg. family, friends, health care providers.**

**Potential probes**

- Do you receive any advice from anyone? Help?
- What works best and why?

**8. Is there anything else you would like to add?**

## Appendix E

## Sample Methodological Notes

**Note # 1**

I am coding what I feel is significant to code, but I am a little concerned that I might miss something important to code. Everything is data. I am going back to the data 3-4 times to review categories based on codes gleaned from data. Read a recent NY Times article and a magazine article in Vogue, on mothering an obese child to gain more insight on this phenomenon, however I have to be careful that the categories identified from this study were not selected out of a preconceived understanding of this phenomenon. I'm reading other literature with the hope to gain more openness and sensitivity toward the data I am collecting.

**Note # 2**

As I progress through the interviews I am asking more probing questions based on comments from prior interviews. I am reflecting back on prior interviews while conducting new interviews and I am seeing new insight for coding.

**Note # 3**

Need to move from description of the data to analysis of the data for conceptualizing and theorizing, this is engaging and thoughtful, but not an easy process.

**Note # 4**

I have to remind myself to separate the roles of being a nurse and a researcher while conducting interviews. My background as a nurse meeting patients and conducting interviews does assist me however, being a nurse and conducting research, the roles are very different.

# Appendix F

## Demographic Data of Participants

| Mother | Age of mother | Ethnicity of mother | Marital status of mother | Obesity of mother | Child's Age | # of yrs. child obese | Gender of child obese | # of siblings in the home |
|---|---|---|---|---|---|---|---|---|
| 1 | 42 | AA | divorced | no | 9 | 5 | female | 1 |
| 2 | 37 | AA | single | yes | 6 | 5.5 | male | 0 |
| 3 | 48 | Caucasian | married | yes | 7 | 5 | female | 2 |
| 4 | 43 | Asian | married | no | 12 | 3 | female | 3 |
| 5 | 48 | AA | partnered | yes | 10 (twins) | 1 | female | 1 |
| 6 | 35 | Caucasian | married | yes | 6 | 1 | female | 2 |
| 7 | 53 | AA | divorced | yes | 8 | 5 mos. | male | 0 |
| 8 | 48 | Caucasian | married | no | 10 | 2 | male | 2 |
| 9 | 43 | Asian | married | no | 12 | 6 | female | 1 |
| 10 | 47 | Hispanic | married | yes | 8 | 2 | female | 0 |
| 11 | 48 | AA | married | yes | 12 | 5 | female | 0 |
| 12 | 51 | Caucasian | married | yes | 8 | 6 | female | 3 |