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# The Pathway to Making Change: How Parents Promote Health for Their Overweight or Obese Child

Jennifer S. Laurent

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THE PATHWAY TO MAKING CHANGE:  
HOW PARENTS PROMOTE HEALTH FOR THEIR  
OVERWEIGHT OR OBESE CHILD

A Dissertation Submitted to the  
School of Nursing

Duquesne University

In partial fulfillment of the requirements for  
the degree of Doctor of Philosophy

By  
Jennifer S. Laurent

August 2010

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Jennifer S. Laurent

2010

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HOW PARENTS PROMOTE HEALTH FOR THEIR  
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Jennifer S. Laurent

Approved May 20, 2010

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## ABSTRACT

### THE PATHWAY TO MAKING CHANGE: HOW PARENTS PROMOTE HEALTH FOR THEIR OVERWEIGHT OR OBESE CHILD

By

Jennifer S. Laurent

August 2010

Dissertation supervised by Dr. Rick Zoucha PhD, APRN, BC, CTN

Informed by the grounded theory method, the aim of this study was to discover, explore, and explain how parents promote the health of their overweight or obese child. Implicit within this goal was to discover the worldview of the parents and to understand the context, properties, and dimensions in which this process occurred. Interviews from 17 participants were analyzed using constant comparison and theoretical sampling techniques. The concepts and constructs that emerged from the data analysis depict the basic social process of how parents come to know their child is overweight or obese and how they promote their child's health given this awareness.

Findings revealed five core process concepts, discovery, taking the lead, making change, engagement, and teamwork. Parental movement and action within the process of making change occurred through the core process linking concepts of parental buy-in,

parental worry, finding the hook, and creating the gel. Embedded and antecedent to the process of making change are influential contextual conditions at a micro and macro level.

The substantive theory that emerged from this study, The Pathway to Making Change, was derived from the data and was comprised of the relationships of the core process concepts, core process linking concepts, and the contextual conditions that clustered from the data during analysis. The Pathway to Making Change represents a dynamic and fluid model founded upon the interaction between parent-child dyad and their lived world. The Pathway to Making Change explains how parents come to know their child is overweight or obese and based upon this awareness how they promote the health of their child. The findings from this study have important implications for nursing practice, future research, public health services, health education, and public policy.

## DEDICATION

This study is dedicated to my husband, my editor, my best friend, and my one true love, Barry W. Heath. It was with his patience, support, and ongoing critique that I was able to successfully pursue and complete my doctoral studies and survive the dissertation process. Words alone cannot express my appreciation. I give you my "h" in my PhD as promised. As you wish...

I would also like to dedicate this dissertation to my friends and family for their patience, support, and confidence through my studies and their understanding when I was less than present both mentally and physically.

To my greyhounds, Nora, Rosie, and Cyrus who provided the unconditional love on those not so "pretty" days when I needed it most. Clearly they understood that some days you win and some days you don't.

And finally to the parents in my study whose willingness to share their stories opened my eyes to their struggle and perseverance as they care for their child. I thank you.

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My dissertation cohort 12 who truly made me believe I was not crazy and I could succeed. Thank you for your critical analysis of my work and more importantly, I thank you for your confidence and unconditional support over the last 4 years. I will miss the PhD weeks and "off DU emails". Cheers, it's 5.00 somewhere.

## TABLE OF CONTENTS

	Page
Abstract.....	iv
Dedication.....	vi
Acknowledgement .....	vii
List of Tables .....	xi
List of Figures.....	xii
CHAPTER 1: INTRODUCTION.....	1
1.1 Background.....	2
1.2 Significance.....	6
1.3 Purpose of the Study.....	7
1.4 Research Question.....	7
1.5 Definition of Terms.....	8
1.6 Assumptions.....	8
1.7 Limitations.....	9
1.8 Summary.....	9
CHAPTER 2: REVIEW OF THE LITERATURE .....	11
2.1 Child Determinants of Overweight and Obesity.....	12
2.2 Parental, Home, and Family Determinants of Child Overweight and Obesity.....	24
2.3 Targeting Parents and Families.....	33
2.4 The Role of the Healthcare Provider.....	34
2.5 Summary.....	35
CHAPTER 3: METHODOLOGY .....	38

3.1 Purpose.....	38
3.2 Methodological Framework.....	38
3.3 Setting.....	40
3.4 Ethical Considerations.....	40
3.5 Participants.....	41
3.6 Data Collection.....	43
3.7 Data Analysis.....	44
3.8 Methodological Rigor.....	45
3.9 Summary.....	47
CHAPTER 4: FINDINGS.....	49
4.1 Study Participants.....	50
4.2 Framework for Coding, Data Analysis, & Theory Development.....	52
4.3 Overarching Contextual Conditions.....	65
4.4 Core Concept: Discovery.....	78
4.5 Core Concept: Taking the Lead.....	90
4.6 The Basic Social Process: Making Change.....	101
4.7 Core Concept: Engagement.....	128
4.8 Core Concept: Teamwork.....	136
4.9 Beginning Theory: The Pathway to Making Change.....	152
CHAPTER 5: DISCUSSION.....	155
5.1 Summary.....	158
5.2 Parental Awareness & Beliefs.....	160
5.3 Food Intimacy.....	164

5.4 Behavior Change.....	166
5.5 Motivation.....	171
5.6 Team Building & Teamwork.....	172
5.7 Implications for Advanced Nursing Practice.....	174
5.8 Implications for Education.....	176
5.9 Implications for Policy Development.....	177
5.10 Implications for Future Research.....	178
5.11 Conclusion.....	181
REFERENCES .....	184
Appendix 1: Consent to Participate in a Research Study .....	211
Appendix 2: Transcriptionist's Confidentiality Agreement.....	218
Appendix 3: Public Domain Participant Recruitment Flier.....	219
Appendix 4: Individual Participant Recruitment Flier.....	220
Appendix 5: Newspaper Advertisement.....	221
Appendix 6: Semi-structured Interview Guide.....	222

## LIST OF TABLES

	Page
4.1 Participant and Child Pseudonyms and Reported Weight Characteristics .....	51
4.2 Study Demographics.....	52
4.3 Results of Open Coding.....	55
4.4 Results from Axial Coding .....	57
4.5 Pathway to Making Change: The Relationship of Core Social Process Concepts and their Linkages to Attributes and Data .....	59
4.6 Overarching Contextual Conditions .....	65

## LIST OF FIGURES

	Page
4.1. Conceptual representation of the sub-categories for the core process concept of Discovery and its linking process concept .....	78
4.2. Conceptual representation of the sub-categories for the core process concept of Taking the Lead and its linking process concept.....	91
4.3. Conceptual representation of the sub-categories for the basic social process of Making Change and its linking process concept .....	101
4.4. Conceptual representation of the sub-categories for the core process concept of Engagement and its linking process concept.....	128
4.5. Conceptual representation of the sub-categories for the core process concept of Teamwork.....	137
4.6. Conceptual model for The Pathway to Making Change .....	153

# Chapter 1

## Introduction

Childhood overweight and obesity is a global epidemic with the United States experiencing the highest levels of child overweight and obesity in the world. As of 2004, 35% of school children are above the International Obesity Task Force (IOTF) criteria of overweight (greater than 85<sup>th</sup> percentile for age and gender) and 13% are obese (greater than 95<sup>th</sup> percentile for age and gender) by this definition (Lobstein & Jackson, 2007). Current statistics estimate that one of every three children and adolescents are overweight, a three-fold increase from 1970 (Ogden, Carroll, & Flegal, 2008). The rates of overweight and obesity vary across the nation from 23% in Utah to 44% in Mississippi (Trust for America's Health, 2009). Minority children and those at lower socio-economic levels are at greater risk for overweight and obesity (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993; Hedley et al., 2004).

Reducing childhood overweight and obesity is considered a priority by Healthy People 2010 (United States Department of Health and Human Services [USDHHS], 2000) and the World Health Organization (2001). The Surgeon General predicts obesity will soon be the cause of as much preventable morbidity and mortality as cigarette smoking (Dallow & Anderson, 2003). Obese children suffer from an increasing prevalence of low self esteem, behavioral problems, type 2 diabetes, polycystic ovarian disease, respiratory disorders, hepatic steatosis, and orthopedic problems (Jain, 2004; Lobstein & Jackson-Leach, 2006). In a European study examining pediatric obesity and co-morbidities, Lobstein and Jackson-Leach (2006) demonstrated a substantive disease

burden. An estimated 1.2 million children are likely to have metabolic syndrome and 1.4 million children are affected by hepatic steatosis. Furthermore, a recent study demonstrated that “healthy” obese children age 7-18 years old meeting one criteria of metabolic syndrome raised their risk of developing premature heart disease and stroke (Mauras et al., 2010). A cohort study of obese American Indian children without risk factors demonstrated increased rates of premature death related to their obesity (Franks et al., 2010). Alarming is that obesity and obesity related disease confer a nine year earlier mortality than for individuals of normal weight status and similar age (Tod & Lacey, 2004).

Global concerns have transitioned away from public health issues once focused on communicable disease toward that of non-communicable disease such as the chronic disease epidemic of obesity and obesity related diseases (Zimmet, 2000). As attention is increasingly focused on the childhood overweight and obesity crisis, the active role of the parent in prevention and treatment becomes unmistakable and imperative for future successes. Successful efforts must involve and work directly with parents to encourage and support healthy practices and behaviors both in and outside of the home. Failure to do so will threaten the future of children nationally and worldwide with a reduced quality of life (Simon, Chan, & Forrest, 2008), psychological distress (Allen, Byrne, Blair, & Davis, 2006; A. Myers & Rosen, 1999), and earlier mortality (Swallen, Reither, Haas, & Meier, 2005) related directly to obesity in childhood.

### **1.1 Background.**

Despite the 2009 ranking as the healthiest state (United Health Foundation, 2009), Vermont falls at the national average of percentage of overweight and obese children

(Vermont Department of Health [VDH], 2006). Vermont has the ninth lowest percent of overweight and obese children in the nation. Approximately 27% of Vermont youths age 10-17 are overweight or obese (Trust for America's Health, 2009). Trends reported by the Vermont Department of Health's 2008 *Health Status Report* demonstrate an increasing prevalence of overweight and obesity in children and adults (VDH, 2008). Targeted efforts addressing childhood overweight and obesity once absent from Healthy Vermonters 2010 (VDH, 2000) have now claimed priority (VDH, 2006). Wang, Beydoun, Liang, Caballero, and Kumanyika (2008) project that by 2030 the prevalence of overweight status in children residing in the U.S. will double. The incidence and prevalence of obesity does not appear to be slowing nationally and Vermont will not be an exception to the crisis.

Given what we know, why is overweight and obesity continuing to escalate? Theoretically, the treatment of overweight and obesity should be straightforward. Consume less and expend more. However, examination of hierarchical factors such as economics and politics interwoven with the child's environment, social interaction, and physiology reveals a quagmire of complexity.

Feeding practices and attitudes are grounded in the environmental context of the culture in which one is reared (Gable & Lutz, 2000; Gardiner & Kosmitzki, 2005). Throughout development food choices and feeding practices are balanced and transformed by the social interaction between parent and child (Broughton, 1987; Chiva, 1997). Coupled with subjective preferences are objective realities such as financial resources and availability and access to nutritious foods (Gortmaker et al., 1993; Stunkard & Sorensen, 1993). The increased availability of calorie dense, poorly nutritious

foods has placed children at risk. Globalization of such foods has contributed to the world wide obesity epidemic (Zimmet, 2000). Food practices, behaviors, and attitudes are rooted in one's culture and stem from the socialization process from childhood to adulthood (Chiva, 1997; Gardiner & Kosmitzki, 2005). These elements define one's particular taste, behaviors, and food choices, aid in the cognitive and physical identity construction of the child, and are reliant upon the parent or caregiver to a large extent until mid to late adolescence (Newman & Newman, 2006).

The disadvantaged family faces further hardship. Food insufficiency has been found to play an independent role in its contribution to overweight and obesity. These households are of low socio-economic status and defined as families who lacked enough food to eat over the previous 12 months. Alaimo, Olson, and Frongillo (2001), demonstrated greater overweight status in food insufficient households than households with food sufficiency. Calorie dense, nutrient deficient foods are economically feasible, highly palatable, and easily accessible (Zimmet, 2000). Academy Award nominee for best documentary, *Super Size Me*, found 83 McDonalds food chains in Manhattan, New York, an estimated 4 stores per square mile (Spurlock, 2004). Globally, Spurlock cites over 30,000 McDonalds in 100 countries on 6 continents, representing 46% of the fast food market share. Houston, voted 2003 fattest city, boasts 253 of the fast food chain (CNN.com, 2003). The power of commerce, its culture and lifestyle, is clearly a fundamental driver underpinning the rise in obesity.

Humans, by necessity, must consume food to live. They do not need to exercise. With advancing technologies and reliance upon other sources of transit, humans are increasingly sedentary (Zimmet, 2000). Increasing physical activity may be prohibitive

for some children. Booth et al. (2001) report the United States as the least walkable nation. Increased residential traffic (Sturm, 2004), less sidewalks (Kerr et al., 2006) and crime (Richmond, Field, & Rich, 2007) may place children at risk for harm. Child safe areas for play and physical activity are of increasing concern by parents and public health officials (Baur & O'Connor, 2004).

Competing with physical activity and playtime is the ever-increasing draw and array of sedentary activities. Screen time comprised of television, movies, computer use, and video games, has replaced physical games for many children creating an overwhelming imbalance of energy consumed v. energy expended (Myers, Strikmiller, Webber, & Berenson, 1996). Adachi-Mejia et al. (2006) demonstrated a 30% increased risk of overweight status for those children with a television in their bedroom. Of the overweight children, 50% had a television in their bedroom.

Obesity and obesity development is more than societal factors promoting both inactivity and food consumption. Parental weight has demonstrated a direct relationship to childhood adiposity (Whitaker, Deeks, Baughcum, & Specker, 2000) and is predictive of future obesity (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997). Cristakis and Fowler (2007) have hypothesized that in one's social network obesity and overweight play an important role for initiating and "spreading" obesity through social ties. For the child, his or her social network, to a large extent, is the parent. This places the burden of a child's healthy weight on the shoulders of the parent within the obesogenic world in which we live.

## **1.2 Significance.**

The burden of chronic disease carries with it hardship that cannot be quantified at any age. Societal costs are high. In 2002 employers and privately insured families spent \$36.5 billion on obesity-related disease, an increase from \$3.6 billion in 1987, once adjusted for inflation. This is an increase of 9.6% of total U.S. health care spending (Hellmich, 2005). Direct and indirect costs of obesity are estimated at \$117 billion and represent 5-7% of all health care costs, a figure that is most likely underestimated. Of these costs, \$127 million are related to pediatric inpatient hospital costs (Colditz & Stein, 2007). Children carrying a secondary diagnosis of obesity upon hospital admission incurred significantly higher hospital fees and longer length of stay for common pediatric hospitalizations (Woolford, Gebremariam, Clark, & Davis, 2007). A sicker, younger population coupled by an increasing aging population will stress health care resources beyond current and predicted estimates. Health care costs must be tempered and may remain uncontrollable if a viable solution to the obesity epidemic cannot be found.

In an era of economic rationing of our nation's limited resources, discovery of influential factors parents use to promote the health of overweight and obese children will direct educational efforts and interventions grounded in theory and supported through research. A theoretical model explaining how parents promote the health of their overweight or obese child will provide nursing and other health care providers the opportunity to provide support to parents that are appropriate and respectful to their needs and the needs of their children. Interventions on behalf of the health care provider will provide a more tailored approach beyond prescriptive measures.

This study provides nursing knowledge for future studies specific to the needs of parents and their children during their search for guidance, intervention, and support. Identified relationships will provide further opportunities for investigators to explore avenues of initiating, encouraging, and enhancing health promoting strategies. Nursing knowledge generated from this study will contribute to practice through theory and provide for the health and well being of families and their future. Additionally, study findings will guide health promotion strategies that may address the escalating and burdensome health care costs associated with obesity and obesity related disease.

### **1.3 Purpose of the Study.**

The purpose of this study was to explore, discover, and explicate the experiential process of parents as they promote health for their overweight or obese child. Implicit within this goal was to discover the worldview of parents during this process and to understand the complex matrix influencing their knowledge, choices, actions, and reactions.

The aim of this study is congruent with the directives and priorities set forth by the Vermont Child Health Improvement Program (VCHIP) and the Vermont Health Foundation (VHF). The findings will support the work of the Vermont Department of Health, VHF, and VCHIP and provide children the best chance of being fulfilled, healthy, long-lived adults.

### **1.4 Research Question.**

To fulfill a vital knowledge deficit in the pediatric and obesity literature the following overarching question was posed. How do parents promote the health of their overweight or obese child? Sub-questions were as follows:

What processes do parents use to promote their child's health within the context of overweight or obesity?

What is it like for parents as they promote the health of their overweight or obese child and how does it affect the choices they make for their child?

### **1.5 Definition of Terms.**

*Child.* Child was defined as a youth between the ages of 9 and 14 years (DeHart, Sroufe, & Cooper, 2004).

*Overweight Status.* Overweight, as defined by the International Obesity Task Force, was defined as greater than 85th body mass index (BMI) percentile for age and gender, calculated as weight in kilograms divided by height in squared meters (Lobstein & Jackson-Leach, 2007).

*Obese Status.* Obese, as defined by the International Obesity Task Force, was defined as greater than 95th BMI percentile for age and gender, calculated as weight in kilograms divided by height in squared meters (Lobstein & Jackson-Leach, 2007).

*Parent.* Parent was defined as an adult, over the age of 18 years, who partakes in the active role of parent or guardian and was responsible for the primary needs of the child that is biological, adopted, or under guardianship for greater than one year.

### **1.6 Assumptions.**

The following assumptions underlie this study.

1. Parents acknowledged their child is overweight or obese.
2. Parents, by the nature of being a parent, desired to promote the health of their child.

3. The concept of promoting health may not be congruent among parents and health professionals.

### **1.7 Limitations.**

The findings of the study relied upon the premise that parents were aware of their child's overweight or obese weight status and were active in promoting the health of their child. Many parents are not cognizant of their child's overweight or obese status or may not perceive such status as concerning or warranting attention. The problem of raising parental awareness was only partially addressed through study findings. Lastly, fathers were under-represented in this study making the findings less transferable to this population.

Participants were recruited from within the state of Vermont and suburban upstate New York. Due to the predominantly Caucasian population characteristics of these regions the study sample does not represent the general population as a whole. This limitation will decrease the transferability of the study findings to more heterogeneous populations. Further long-term studies to include diverse populations are warranted to support and lend credibility to the findings of this study and address the difficult problem of raising parental awareness.

### **1.8 Summary.**

The parenting role is a difficult one. The struggles of the parent of an overweight or obese child given the array of economic, social, cultural, developmental, and environmental factors creates a complex process which has not been described within the pediatric literature. Discovery of the experience as they promote the health of their overweight or obese child will illuminate the multifaceted dimensions particular to these

parents. Such knowledge will be invaluable for other parents and the individuals who support them in their pursuit of healthy children. Societal gains are both direct and indirect. Ultimately, the utilization of evidenced based practice will provide healthcare providers the knowledge and insight to assist parents in the health promoting process for their child with little, if any, additional financial burden.

# Chapter 2

## Review of the Literature

It is important to address the methodological framework prior to reviewing the state of the literature. Historically leading experts in grounded theory have advised against *a priori* literature review citing fear of future analytic contamination and constraint by the investigator. The concern is that approaching the inductive process of grounded theory with such preconceived ideas prior to one's investigation will hamper the investigators ability to discover new emerging concepts, themes, and theory contrary to the state of the extant literature (Glaser, 1992, 1998; Glaser & Strauss, 1967b). This *tabula rasa* approach is rejected by many scholars who believe research begins with relevant preconceived ideas that assist in formulating the nature of further investigation (Hutchinson & Skodol-Wilson, 2001). Without some conception of the phenomenon of interest contrary ideas and novel concepts would not be apparent to the investigator (Bryant & Charmez, 2007; Charmez, 2006; Dey, 1999). Congruent with this latter perspective, the objective of this chapter is not to stifle the creative skillfulness of the investigator who uses the grounded theory process but to present data which support and lay a foundation for the nature of this inquiry.

There is an over-abundance of literature exploring the many facets of childhood overweight and obesity. This chapter presents an overview of the state of literature as it pertains to the following: child determinants of overweight and obesity; parent, home, and family determinants of childhood overweight and obesity; family and parent based treatment programs; and the role of the healthcare provider.

## **2.1 Child Determinants of Overweight and Obesity.**

Adolescence is a period of psychological and social transition between childhood and adulthood. This transition involves biological, social, and psychological changes. Dietz (1994) has identified early adolescence as a critical period for obesity development. Fat deposition increases throughout childhood. The pubertal time of androgen production places the adolescent at risk of central obesity conferring greater morbidity. In girls premenarchal weight status was more prognostic of adult overweight and obesity (Must, 2005). The effect of adolescent obesity clearly demonstrates a subset population at greater risk for and earlier onset of increased morbidity and mortality regardless of adult weight (Dietz, 1994, 1998).

Predictors of adult overweight and obesity can be demonstrated as early as toddlerhood. In a longitudinal study of ethnically diverse 2 to 12 year olds, Nader, et al. (2006) found that overweight status at any point in elementary school demonstrated an 80% increase odds ratio of overweight at age 12 years. Concerning and surprisingly, in children who were above the 50<sup>th</sup> BMI percentile for gender and age, well below the IOTF 85<sup>th</sup> percentile cut point of overweight, 40% were overweight by age 12 years. Of these children approximately 30% of obese early adolescent girls and 10% of early adolescent boys become obese adults (Dietz, 1994). Freedman et al. (1987) in the landmark Bogalusa Heart Study estimated this to be higher with approximately 50% of overweight children remaining greater than 85<sup>th</sup> percentile for age and gender using triceps skin fold (TSF).

The pervasiveness of childhood overweight and obesity requires an examination of the pertinent factors contributing to a lifelong burden of obesity and obesity related

disease and stigma (Jarvie, Lahey, & Graziano, 1983; Puhl & Latner, 2007). The role of sugar sweetened beverages, sedentary behaviors and physical activity, and food, food intake and food environment and their role in childhood overweight and obesity will be reviewed.

*Sugar sweetened beverages.* From 1977 to 1998 the overall rate of soft drink consumption in youth has increased 48%. The quantity of soft drinks consumed increased 123% resulting in a 103% increase in the proportion of energy consumed by youths age 6-17 years (French, Lin, & Guthrie, 2003). In a large U.S. survey, Harnack, Stang, and Story (1999) revealed 33% of preschoolers consumed greater than nine ounces of soft drinks per day yielding a proportionate increase in energy intake compared to non-consumers. Additionally, soft drink consumption displaced milk, fruit juice, and other vital nutrients, specifically calcium and protein. In a retrospective study by Welsh et al. (2005) 1-2 sugar sweetened beverages (SSB) per day increased the risk of becoming overweight in at-risk-for overweight 2-3 year olds by 60%. Fruit juice did not significantly increase the incidence of overweight in at-risk-for overweight children but did increase the persistence of overweight in those children currently overweight. Furthermore, this study demonstrated a dose response between SSB intake and energy intake. This effect was supported in a multiethnic study of 11 year olds by Ludwig, Peterson, and Gortmaker (2001). In a two year prospective study baseline SSB consumption and change in consumption independently predicted BMI and increased total energy consumption by 875kJ for each additional 265mL consumed. Alarmingly, 57% of these children increased their intake of SSB in this two-year span.

A randomized controlled trial (RCT) by James, Thomas, Cavan, and Kerr (2004) aimed at reducing carbonated beverages demonstrated a significant decrease in overweight and obese status in 7-11 year old U.K. school children, whilst 7.5% of children in the control group increased in weight during the same time frame. An elegant, well powered RCT by Ebbeling et al. (2006) trialed an environmental intervention to decrease the consumption of SSB and BMI by delivering non-caloric beverages to U.S. adolescents households. Body mass index in the intervention group improved. For each decrease in one SSB, BMI decreased by 0.26. The greatest effect was found in heavier adolescents and higher consumers of SSB. Of significance is their finding that 50% of all SSB are purchased by the parents.

***Sedentary behaviors and physical activity.*** Approximately 75% of infants, toddler, and preschool children watch television (TV) for an hour or greater per day. With increasing age this amount further increases with older children spending 3 or more hours per day viewing TV. Dietz and Gortmaker (1985) report that children may spend as many hours viewing TV as attending school. When including other sedentary behaviors, or “screen time” such as video games and computer time, time estimates may increase to as much or more than 5 hours per day (Jordan & Robinson, 2008). This equates to approximately 25% of a child’s wakeful time (Robinson, 2001), one and a half months per year (Schlosser, 2002), or 25,000 hours before a child’s 18<sup>th</sup> birthday (Larimore, Flynt, & Halliday, 2005) is spent on screen time.

***Television viewing.*** The relationship between TV viewing and obesity is well documented. Experts postulate four potential mechanisms for the harmful influence of TV and childhood overweight and obesity. Television reduces energy expenditure by

displacing physical activity, encourages snacking of high caloric, high fat foods, and decreases resting metabolic rate (Jordan & Robinson, 2008; Robinson, 2001). Aside from direct viewing, TV advertisements directly influence the purchase of energy dense, non-nutritious foods by parents secondary to pressures placed on them by their children (Taras, Sallis, Patterson, Nader, & Nelson, 1989).

A review by Bryant, Lucove, Evenson, and Marshall (2007) found that countries with the highest level of food advertising during child viewing hours demonstrated an increase incidence of childhood overweight and obesity, the U.S being among the top ranked for commercial food advertising in the world. According to Schlosser (2002), author of *Fast Food Nation*, major advertising agencies and corporations have developed children's divisions to target children and influence parental purchases. It is estimated that "brand loyalty" and "nagging tactics" can be achieved as early as age 2. This strategy has panned out. In a study by Taras et al. (1989) children's TV viewing had a direct effect on parental food purchases and subsequent BMI in children. Findings demonstrated that high sugar, high fat foods were the most requested by children and purchased in greater proportion by parents. A direct correlation was demonstrated between caloric intake, number of TV viewing hours, number of requested foods, number of purchased foods, and snacking while viewing. Not surprisingly, the greater the purchase of such foods proportionately increased BMI in children. Conversely, a Swiss study by Stettler, Signer, and Suter (2004) found time spent viewing TV was an independent risk factor for obesity in children despite the limited commercials found in Swiss TV programming. Estimation of TV time did not include evaluation of weekend

viewing, a potential weakness and confounding variable in their findings. Regardless, this highlights the complex influence of TV on child overweight and obesity.

To determine if TV blunted normal physiologic cueing of satiety, Bellissimo, Pencharz, Thomas, and Anderson (2007) administered a glucose preload to 9-14 year old normal weight Canadian boys. In the TV study group there was failure to report a subjective decrease in appetite following the preload in addition to a significant increase in food intake by approximately 228 kcal in one 22 minute lunch period. Temple, Giacomelli, Kent, Roemmich, and Epstein (2007) lend further support. In their experimental study design, children of both genders and similar age were found to eat for longer durations, have greater motivation to eat, ignore internal cueing of satiety, and consume greater amounts of energy while viewing TV. Of importance is that these studies were in normal weight children and of small sample size ( $n < 30$ ) making generalization to overweight and obese children difficult. Francis and Birch (2006) under laboratory conditions found no difference in food intake in preschool children. However, parents reported greater intake of food by their children at home while viewing TV. This was most significant in children who normally ate while viewing TV suggesting inhibition of satiety given a consistent stimulus. Food choice was affected in a study examining the impact of TV viewing on family meal time. Fitzpatrick, Edmunds, and Dennison (2007) discovered that children were less likely to consume fruits, vegetables, and milk during dinner. They estimate approximately one third of children under the age of 6 years eat dinner while viewing TV.

The relationship between TV and metabolic rate remains unclear despite the postulated hazards of TV and overweight and obesity. The literature that exists is mostly

cross sectional. In a controlled laboratory setting, Klesges, Shelton, and Klesges (1993) found TV viewing significantly decreased resting metabolic rate in both normal and obese pre-adolescent girls. Yet, the obese children demonstrated an overall higher resting metabolic rate (RMR). Obese children were found to watch more television than their normal weight peers. The synergistic effect of time spent viewing TV and lowered RMR during this time supports a causal relationship between TV viewing and fatness. Dietz, Bandini, Morelli, Peers, and Ching (1994) compared the RMR during TV viewing to that of other sedentary activities such as sitting and reading. Findings revealed no significant differences in RMR during TV viewing in a comparable sample. Cooper, Klesges, DeBon, Klesges, and Shelton (2006) demonstrated similar findings when comparing resting energy expenditure of obese and normal weight girls during reading, TV viewing, and resting. The authors suggest that displacement of physical activity by TV (Dietz et al., 1994) and greater energy intake during TV viewing (Cooper et al., 2006; Taras et al., 1989) is more likely implicated in overweight and obese status in children. Although both studies are methodologically sound, their findings are limited by the homogenous, small sample size ( $n < 30$ ).

*Computer use and video games.* Although TV viewing continues to outrank all other forms of media usage in youth (Roberts, Foehr, & Rideout, 2005), with the increasing reliance on technology and the high prevalence of home computers (Subrahmanyam, Greenfield, Kraut, & Gross, 2001) children have greater access to a wider variety of sedentary behaviors. Of U.S. households with children 8-17 years 60% have home computers and of these children, 61% have access to the internet (Subrahmanyam et al., 2001). In a typical day children and youth spend one hour per day

using the computer for recreation and 67 minutes a day playing console and handheld video games (Roberts et al., 2005). In one large national survey combined video and computer game usage outranked TV viewing in children under 11 years old (Christakis, Ebel, Rivara, & Zimmerman, 2004).

In an effort to combat childhood overweight and obesity, the American Academy of Pediatrics recommends limiting screen time to less than 2 hours per day (Committee on Public Education, 2001). Although there is evidence to relate TV viewing to obesity and overweight in children, the contributory role of other sedentary forms of media is limited. The hypothesis that video games contribute to weight gain in youths was primarily extrapolated from early studies examining the relationship between TV viewing and weight status (Vandewater, Shim, & Caplovitz, 2004). To investigate the supposition that video games mimic the detrimental effects of TV viewing on energy cost, Segal and Dietz (1991) examined energy expenditure and other biomarkers of cardiovascular response in 16-25 year olds. They concluded that playing video games approximated mildly intense exercise equivalent to a 2 mile per hour walk. Subsequent studies have failed to make a direct link between computer and video games and overweight and obesity that is significant once controlling for TV viewing hours (Lutfiyya, Lipsky, Wisdom-Behounek, & Inpanbutr-Martinkus, 2007; Marshall, Biddle, Gorely, Cameron, & Murdey, 2004; Stettler et al., 2004), SES, and ethnicity (McMurray et al., 2000).

*Sedentary behaviors and displacement of physical activity.* An increasingly important factor in light of the increase in screen time is the postulated displacement of physical activity and its impact on physical fitness (Robinson, 2001). Energy expenditure in the form of physical activity is critical for maintaining an ideal body weight (IBW),

and more so in children that are overweight or obese (Nanney, 2007). Most of the research focuses on TV viewing and remains indecisive. A meta-analysis by Marshall et al. (2004) found a small but significant inverse relationship between physical activity and screen time. After controlling for TV composite variables, the effects of non-TV screen time venues (computer time and video games) were non-significant with regard to overweight or obese status suggesting TV viewing as the detrimental effect on weight status. The authors cite caution due to the high prevalence of cross sectional studies and inconsistent and variable measures employed in quantifying TV usage. It may be more likely that TV viewing displaces moderate to vigorous physical activity and subsequently affects weight status.

Barr-Anderson, van den Berg, Neumark-Sztainer, and Story (2008) lend support to the premise that TV displaces physical activity. Their large scale survey found adolescents with TV's in their bedroom were more likely to view TV, less likely to engage in moderate to vigorous physical activity, and more likely to have poorer dietary habits. In a similar study, Adachi-Mejia et al. (2006) found children with increased access to television were less likely to participate in sports, be physically active, and be less physically fit. Burke et al. (2006) confirms these findings. Eleven to 14 year old Australian boys with greater TV viewing were less likely to be physically fit than their normal weight peers. Paradoxically and without explanation, girls with greater TV viewing were less likely to be overweight or obese. No relationship was found between sedentary behaviors and physical activity or fitness in girls. Causality of TV supplanting physical activity remains difficult to determine as these studies are cross sectional.

A two year RCT by Epstein et al. (2008) recruited 67 families to determine if decreasing TV viewing and computer use resulted in decreased sedentary behaviors and weight loss. Over six months, the child's TV viewing and computer use decreased by 50% using a television monitoring system, employing parental control, and financial incentives. At 6 months the children in the experimental group lost weight, decreased their intake, and were less sedentary. This was more profound in families of lower socioeconomic status (SES). Physical activity levels were not significantly affected. A longitudinal study of normal weight 8-12 year old pre-menarchal girls found screen time was unrelated to BMI z-score and percent body fat (Must et al., 2007).

The question of whether TV viewing, video, and computer game usage displaces physical activity was addressed by Vandewater, Shim, and Caplovitz (2004). In a large multi-ethnic study elevated BMI correlated with increasing video game usage in school-aged children with greater risk in girls 8 years old and younger. Once controlling for TV viewing and weight, children with increased video game usage were found to be more sedentary with less vigorous physical activity. They concluded video game usage was more likely than TV viewing to displace physical activity. On cross-sectional analysis Robinson et al. (1993) found greater after school viewing of TV was weakly related to decreases in physical activity in 6<sup>th</sup> and 7<sup>th</sup> graders but upon longitudinal analysis this effect disappeared. It is unclear if weekend TV viewing was included in data collection.

O'Loughlin, Gray-Donald, Paradis, and Meshefedjian (2000) examined predictors of increased BMI in pre-adolescents. At one year follow up daily video game use was predictive of increased BMI in girls. This finding was no longer significant at the two-year follow-up. On final analysis TV viewing was not independently related to physical

activity. These findings are potentially flawed due to a significant loss (63%) of participants at follow-up. A longitudinal study by McMurray et al. (2000) failed to show a similar relationship in 10-16 year olds. They cite that low SES and ethnicity directly affected weight status regardless of TV viewing, video game usage, and physical activity. Female adolescents and African Americans were identified as most at risk. Interestingly males were found to balance their TV viewing of 2-3 hours per day with increased amounts of vigorous physical activity (VPA).

Conflicting studies limited by design methodology and inconsistent flawed psychometric instruments make comparisons between studies difficult. Sample characteristics, in particular the heterogeneity of participant age, further hamper conclusions that sedentary media usage neither causes overweight and obesity in children nor displaces physical activity. It is well known the metabolic needs, physical activity levels, and level of sedentary media usage fluctuate in any given age group throughout the lifespan (DeHart, Sroufe, & Cooper, 2004; Newman & Newman, 2006). This adds further evidence to the complex nature of weight gain and weight status in children and the lack of evidence behind current interventions aimed at treating children who are overweight and obese.

*Physical activity.* Much of the pediatric literature on physical activity in overweight or obese children examines the relationship between sedentary behaviors and physical activity. Although frequently cited, little evidence exists that overweight or obese children are less physically active than their normal weight peers. A review by van der Horst et al. (2007) found no evidence suggesting a significant relationship between physical activity and BMI or skin fold thickness. Furthermore, the International

Conference on Physical Activity and Obesity in Children (Katzmarzyk et al., 2008) report the majority of children regardless of weight status do not meet the current recommended amount of physical activity with girls averaging 16 minutes per day of moderately vigorous physical activity (MVPA) and boys averaging 25 minutes per day. Goran and Treuth (2001) examined energy expenditure in normal and overweight children and found no difference in total energy expenditure of obese children relative to their size. No evidence demonstrated the role of total energy expenditure in predicting fat gain.

Why is it that insufficient physical activity is linked to overweight and obesity and is the key component for approximately 75% of interventions aimed at affected children (Katzmarzyk et al., 2008)? It is clear that interventions including physical activity demonstrated improvement in markers of chronic disease such as cholesterol and blood pressure (Dietz & Robinson, 2005). More probable is the link between overweight and obesity and physical fitness. Hussey, Gormley, Bell, Roche, and Hoey (2006) found decreases in exercise tolerance in a group of treatment seeking obese youngsters using biophysical markers. Sixty four percent of girls and 75% of boys were below the minimum standards for physical fitness in this sample. Non-clinical children participating in organized physical activity demonstrated increase physical fitness than those children in non-organized physical activity and were less likely to be overweight at completion of the one year study (Christodoulos & Flouris, 2006).

In a thought provoking publication, Jason and Brackshaw (1999) recruited a single obese girl with excessive TV viewing (>4 hours per day) to determine if decreasing TV viewing would result in weight loss. The 11 year old girl was required to exercise 60 minutes to watch 60 minutes of TV. The authors demonstrated a significant

reduction in TV viewing by 75% and a 20 lb. weight loss that was maintained for greater than one year. It is unclear if weight loss was related to less television or greater physical activity.

***Food, food intake & food environment.***

*The changing diet.* Little doubt exists with regard to the changing diet of Western America. French and colleagues (2001) report approximately 40% of total food monies are spent on away-from-home meals. Why? Several reasons exist; away-from-home meals may look and taste better, are quick, easy, and parents are too busy to prepare meals (Neumark-Sztainer, Story, Perry, & Casey, 1999). As a result, nearly one third of the calories in the U.S. diet come from junk food with soda, pastries, hamburgers, pizza, and potato chips leading the top five most consumed foods (Block, 2004). Although specific numbers are unavailable, McDonalds estimated an increase in sales of their children's 640 calorie Happy Meal™ to exceed the previous 2002 years sales by 40 million (Sedensky, 2008). Burger King's 670 calorie Whopper™ estimates sales of 40 million per day (French et al., 2001). If away-from-home meals approximated home prepared foods, calories consumption per individual would result in a net loss of 197 calories per day and a 31.5% decrease in saturated fats. Regardless of age this places all individuals in general and children in particular at risk for steady, significant weight gain. A study by Johnson, Mander, Jones, Emmett, and Jebb (2008) demonstrated that children at age 7 with an energy dense diet predicted overweight status at age 9 years. Additionally, this "trait" of choosing an energy dense diet was stable starting at age 5 through each data point at age 7 and 9 years old. Unfortunately, it is not only the fast food or restaurant dining that is implicated in weight gain. A study by Ayala et al. (2008)

found that Latino children who ate away-from-home-meals at neighbors and relatives more than once a week were more likely to be overweight. Meals at neighbors and relatives were more likely to include sugar sweet beverages and snacks similar to “dining out”. Of concern is that not only will many of these children be overweight or obese, but they will be nutritionally depleted of vital nutrients found in nutrient dense foods such as fruits and vegetables current lacking in their diet and absent in away-from-home foods (Block, 2004).

## **2.2 Parental, Home, and Family Determinants of Child**

### **Overweight and Obesity.**

Parenting is a process of raising and educating a child through to adulthood. Throughout this process parents provide basic necessities, love, support, protection, and stimulation to ensure the optimal development of their child (DeHart et al., 2004; Gardiner & Kosmitzki, 2005). A child’s particular taste, behaviors, and food choices are interwoven within the cognitive and physical identity construction of the child, and are reliant upon the parent or caregiver to a large extent until mid-to-late adolescence (Newman & Newman, 2006). The multiple humanistic, societal, and cultural demands present the parent with endless decision-making that can be likened to a juggling act. Given all these demands, how do parents impact their child’s weight status?

*Overarching parental influences.* In an attempt to correlate parenting style with overweight or obese child weight status and further understand the influence parents have on their children, investigators have examined parenting typologies based upon the works of Baumrind. Four parenting styles were developed to describe two aspects of parenting style, parental responsiveness and demandingness (Baumrind, 1971). Of the four styles,

the authoritative parent is considered the “recommended” parenting style. This type of parenting utilizes a child center approach with defined rules and open dialogue.

Conversely, the authoritarian parent has high expectations of the child, demands conformity, and partakes in little dialogue. “Neglectful” parents are generally neglectful of the child despite providing for his or her basic needs. “Permissive” parents are nurturing and caring but have few demands and expectations of the child.

Among the parenting styles, authoritarian parenting by mothers was found to be associated with the highest risk of overweight among school age, predominantly white children. Children of permissive and neglectful mothers were twice as likely to be overweight than those children with authoritative mothers (Rhee, Lumeng, Appugliese, Kaciroti, & Bradley, 2006). Lissau and Sorenson (1994) prospectively demonstrated neglectful maternal parenting styles predicted greater risk for obesity in young adulthood based on teacher report of 9 to 10 year old Danish children. Stein, Epstein, Raynor, Kilanowski, and Paluch (2005) investigated whether parenting style predicted weight loss maintenance in children in a family based treatment. Although both parents were included in the statistical model, only increasing paternal praise, support, and behaviors consistent with authoritarian parenting were associated with better weight loss and weight maintenance over 12 months.

Of critical concern given the above literature is the limitation presented by categorizing one parent with one parenting style. The various typologies may differ on the importance of the intended parental aim. Parenting style, practices, and behaviors are fluid with respect to the importance of goals by the parent intertwined within the context and the demands placed upon them by the sociocultural environment in general and the

child in particular (Darling & Steinberg, 1993). Parenting style does not necessarily equate to parenting practices. A Caucasian parent may exert authoritarian type practices such as controlling food intake and regimenting exercise for his or her obese child to aid in weight loss because this is a valued, important goal. This same parent may be characteristically authoritative in other aspects of parenting. Alternatively, one parent may not perceive ideal body weight as a valued goal therefore allowing for a more permissive stance with regard to nutritional habits.

Darling and Steinberg (1993) caution investigators and scholars in attributing one parenting style as preferred given the diversity found in variable ethnicities and cultures. In their work, authoritarian parenting styles are more effective in African American families than the authoritative style generally considered ideal in the literature. More likely it is the alignment of goals and working relationship between parent and child that typifies parental success in weight loss for one's overweight or obese child. A qualitative study by Borra, Kelly, Shirreffs, Neville, and Geiger (2003) used focus groups, in-depth home observations and interviews, and diaries to understand parental and child perceptions and behaviors about preventing childhood obesity. Their findings suggest that parents need to learn how to positively discuss healthy eating and physical activity with their children and to learn strategies to encourage them to lose and maintain weight loss. Additionally, these messages need to be direct and motivating. Early findings in an unpublished mini study suggest that many parents of overweight and obese children are doing just this (Laurent, 2007). One must look beyond the defined parental typology or style and examine the process that links the contextual nature of behaviors, influences, and determinants to the desired effects and optimal outcomes.

*Parental Feeding Influences and Eating Practices.* The largest interval increase in overweight and obesity occurs between the age range of 2-5 and 6-11 years of age. During this time overweight and obesity prevalence rates escalate from 20% to 37% (Rhee, 2008). As children age the preference for energy dense foods supercedes more nutrient dense foods (Birch, 1980b; Halford et al., 2008; Klesges, Stein, Eck, Isbell, & Klesges, 1991), and parental, peer, and family influences play an increasing role in food intake and food preference (Birch, 1980a, 1980b).

Parental practices such as prompting to eat have a direct influence as early as toddlerhood. Klesges et al. (1983) found when observing family meals children spent little time requesting food while parents spent increasingly more time encouraging their children to eat. Amount of time spent prompting by the parent correlated with the child's relative weight and with overall time spent eating. Lumeng and Burke (2006) found that although obese mothers did not prompt their child to eat more often than normal weight mothers, children of obese mothers were more compliant when prompted. These findings suggest obese children may be more susceptible to environmental cues to eat. One may speculate that prompting behaviors by parents contributes to learned eating in the absence of hunger by their children.

Eating in the absence of hunger and its relationship to overweight or obesity is of great concern particularly when this is a learned, socialized trait of young children. A prospective longitudinal study by Fisher and Birch (2002) demonstrated that girls who ate in the absence of hunger were more likely to consume more snack foods and increase their BMI by 4.6% over 2 years. Furthermore, when Birch, Fisher, and Davidson (2003) examined whether restriction of foods by mothers moderated eating in the absence of

hunger of their overweight daughters, they found mothers who used restrictive practices had daughters with the highest rate of eating in the absence of hunger. Worrisome is the persistence of this trait of eating in the absence of hunger and paradoxical effect of restricting foods once this trait is established.

By nature of their role, parents mediate the choices of their children. The choice to buy or eat certain foods and the affective social context is covertly and overtly modeled by the parents. How parents act toward food and their child's eating habits has a direct bearing on their child's subsequent food choice, food consumption, and eating patterns, which, in turn, has a direct bearing on weight status. Studies have shown that children are more likely to consume familiar foods (Birch & Marlin, 1982), eat greater portion sizes when provided with such quantities (Rhee, 2008), and choose foods that are perceived to have a positive social context (Birch, 1980b) or viewed as the preferred choice by their peers (Birch, 1980a). Parents using a reward contingency such as "eat your vegetables or you cannot have dessert" results in a paradoxical effect. Birch, Marlin, and Rotter (1984) found a negative shift in preference of such foods despite an increase in consumption. Importantly, the consumption of these foods (i.e. vegetables) only occurred while the contingency was in effect. Reward sensitive children were found to have increased consumption of food regardless of weight. However, overweight and obese children demonstrated less response inhibition than normal weight children (Guerrieri, Nederkoorn, & Jansen, 2007).

An interesting study by Klesges et al. (1991) found that given the free choice of a variety of nutrient rich or deficient foods, children selected foods high in energy, saturated fat, and sodium. If the child thought his or her parent would be present the

child moderated the food choices by choosing lower sugar, salty, and fatty type foods. Yet, when parents were allowed to modify their child's choice, parents removed nutrient deficient food but did not increase the proportion of nutrient rich food. Halford et al. (2008) confirmed these findings in overweight and obese children. They found overweight and obese children were more likely to select foods high in fat compared to normal weight pre-adolescents. The preference for energy dense diets was found to be a consistent attribute over 4 years among 5 year old children and significantly related to increased fat mass at age 7 and 9 years (Johnson et al., 2008).

These findings suggest that children do not choose nutritious foods independently. Parents do have an impact on their child's food selection and can play a direct role in modeling and moderating food choice and consumption. Tibbs et al. (2001) demonstrated lower fat eating patterns and higher consumption of fruits and vegetables in African American children's parents who modeled healthy dietary behavior with greater frequency. Although this study did not address childhood overweight or obesity, the implications for consistent role modeling with regard to healthy diet and dietary patterns are apparent.

***Family meals.*** Mealtime serves many roles for a child and family. By observing and interacting with adults and peers during meal time, children develop behaviors and attitudes toward food early in life (Gardiner & Kosmitzki, 2005). There is opportunity to foster independent healthful food choices both in selection and quantity, explore daily issues, and provide opportunities for sharing and learning.

Replacing the days of the pedagogic meal is a new food culture. Focus has turned from wholesome, family-based meals to quick, affordable foods requiring little

preparation, little clean up, and little time for social interaction. A study by Jabs et al. (2007) found that low income mothers experienced stress and strain while attempting to provide meals for their children. Concerns over lack of time, mothers chose meals that were convenient and fast, while at times sacrificing the healthfulness of the meal in order to meet the priorities of feeding their children. Adolescents echo these sentiments. Neumark-Sztainer et al. (1999) explored food choices by adolescents. Factors such as convenience, easy preparation, availability, portability, and little clean up directly influenced food choices. When asked what would encourage healthy eating, adolescents cited family meal patterns, rules surrounding meals, availability of healthy foods, and parental eating and cooking behaviors.

Does the absence of the family meal promote overweight and obesity? In a large scale study by Sen (2006) higher frequency of family dinners was associated with reduced odds of becoming overweight and increased odds of returning to normal weight in white 12 to 15 year olds but not black or Hispanic children. Although the meal composition was not examined, other studies cite positive effects such as increased vegetable and fruit consumption (Neumark-Sztainer, Hannan, Story, Croll, & Perry, 2003; Videon & Manning, 2003), positive social interactions (Zeller et al., 2007), and fewer skipped meals (Neumark-Sztainer, Eisenberg, Fulkerson, Story, & Larson, 2008).

The benefits of family meals may suffer a direct blow with concomitant television viewing. Families of school aged children who ate more than two meals per week while viewing TV consumed more high fat foods (i.e. pizza, soda, salty snacks), saturated fats, and less fruits and vegetables (Coon, Goldberg, Rogers, & Tucker, 2001). Similarly, TV viewing during meals was associated with less fruit, vegetable, and milk consumption in

children 1 to 5 years of age (FitzPatrick et al., 2007). Educated, suburban mothers of two-parent households characterized the latter study sample while the former study sample consists of New York City's Women Infant Children program (WIC). This provides evidence for the pervasiveness of poor nutritional intake across a variable age range of children's age groups and the consistency of effect TV viewing exerts during family meals. Neither of these studies examined the relationship to child weight and both are limited to interpretation based upon methodology. It is unclear if TV changes diet or if TV is a marker of a more complex set of behaviors and family attributes.

There may be potential negative effects of the family meal in special populations. A Chinese study by Jingxiong et al. (2007) examined the influence of grandparents on eating behaviors. Grandparents were found to play a large role in the caretaking of children, and education and planning of the family meal. However, they also encouraged eating more meals and greater portions. Such concerns have also been found in an unpublished manuscript whereby interviews with parents of overweight and obese children describe the selection of healthy proportioned foods as "undone" by grandparent interference during mealtime (Laurent, 2007). Zeller et al. (2007) found other concerns when studying obese children and their families. In families with obese children meal times were characterized by conflict, challenges, and maternal stress.

***Parents and physical activity.*** Most literature examining the parental role and its relationship to physical activity in children involves intervention studies. Few studies investigate the influence of parenting on physical activity levels of children in non-clinical samples. Moore et al. (1991) found children of physically active parents were more likely to have physically active children than children of inactive parents. Children

whose mothers and fathers were physically active demonstrated a 2.0 and 3.5 increased odds ratio of being physically active as compared to inactive mothers and fathers, respectively. When both parents were active their children were 5.8 times more likely to be physically active than children of two inactive parents. Lau, Lee, and Ransdell (2007) supported these findings in a recent Chinese study. They found role modeling by fathers significantly influenced their overweight child's attraction to physical activity and perceived competence regardless of gender. Freedson and Evenson (1991) found a "dose-response" effect between physically active parents and their physically active children, meaning parents with increasingly higher levels of physical activity had children with increasingly higher levels of physical activity.

Social support by parents, family, and peers has been shown to influence physical activity levels in children. Duncan, Duncan, and Stryker (2005) found increased physical activity levels in 10-14 year olds were related to increased social support (i.e. attending sports events) by their parents. Sallis, Prochaska, and Taylor (2005) reported variables such as parental support, sibling physical activity, and direct help from parents were consistently associated with increased physical activity levels in adolescents (13-18 years old) but not children (3-12 years old). A review of correlates of physical activity, insufficient physical activity, and sedentary behaviors found parental support and parental physical activity was related to physical activity levels in boys but not girls (van der Horst et al., 2007). The directional inferences are hampered by the methodological design of such studies and the small number of studies isolating weight status as a variable.

### **2.3 Targeting Parents and Families.**

Family based treatment for the overweight and obese child yields mixed results. Studies examining family based treatment consisted of targeting a narrow range of parenting practices in the form of diet counseling (Paineau et al., 2008) and physical activity (Nemet et al., 2005) and targeting parent practices, general parenting skills, or family functioning (Golan & Weizman, 2001; Golley, Magarey, Baur, Steinbeck, & Daniels, 2007). Current literature (Jiang, Xia, Greiner, Lian, & Rosenqvist, 2005; White et al., 2004) supports family and parent interventions but long-term weight loss is dismal with 80-90% of children regaining their weight (Dietz & Robinson, 2005; Sneath, Broome, & Cashin, 2006). Nowicka and Flodmark (2008) concur that although family based treatment interventions are generally successful during the intervention, no time frame is provided as to judge the program's long term effectiveness and it remains unknown if these changes are sustained.

Epstein, Klein, and Wisniewski (1994) caution about the potential increase in disordered eating as greater focus is placed on the child, eating, and weight control. Investigators have identified possible shared risk factors for the development of obesity, disordered eating, and eating disorders (Haines & Neumark-Sztainer, 2006). Crow and colleagues (2006) reported that overweight adolescents are 1.5 to 3 times more likely to report dieting and use of extreme weight control measures. Overweight and obese children were found to have greater loss of control over eating (Levine, Ringham, Kalarchian, Wisniewski, & Marcus, 2006), greater incidence of binge eating (Decaluwe & Braet, 2003; Tanofsky-Kraff et al., 2004), bulimia, and unhealthy eating behaviors

(Littleton & Ollendick, 2003). Importantly, these studies are cross-sectional in design thereby hampering the interpretation of causality.

Evidence for the role of the parent or caregiver as the exclusive agent of change for the overweight and obese child is sparse. Two studies (Golan, Kaufman, & Shahar, 2006; Golan, Weizman, & Fainaru, 1998) demonstrated significant short and long term (2 years) weight loss in children, improved program attendance, and fewer drop outs when targeting interventions to parents only, compared to child and family based interventions. The authors hypothesize that more information can be disseminated, parents are less distracted in the absence of the child[ren], and the child is not stigmatized as the overweight or obese patient. Additionally, there is less power struggle between parent and child over needs and wants in the home setting. Potentially, there are fewer obsessions over food, weight, and weight control.

## **2.4 The Role of the Healthcare Provider.**

Where do parents seek out advice for their overweight or obese child? An obvious answer would be from their child's healthcare provider (HCP). Barlow and Dietz (2002) found most HCP are aware of the current recommendation set forth for the treatment and prevention of childhood obesity and are overwhelmingly concerned about obesity, obesity related disease, and its complications. Concerning is the barriers that prevent HCPs from discussing their weight related concerns with parents. The authors cite lack of time, lack of re-imburement, frustration, and doubtfulness with regard to effective strategies for weight loss as significant barriers to counseling parents about their child's weight. In an unpublished mini study (Laurent, 2007), parents are equally as

frustrated by the over simplified prescribed recommendations by HCPs to “eat right” and “exercise more”.

While examining rural residence and risk of child overweight and obesity, Lutfiyya et al. (2007) found that rural youngsters were more likely to be overweight and have co-morbidities than their metropolitan counterparts. Most alarming, however, is that this population was less likely to be insured and did not access preventative health care in over 12 months time. Not all parents and children have access to such services. The potential lack of intervention by or access to a HCP places the affected child at increasing risk of persistent overweight or obese status and obesity related sequelae. Unfortunately, parents who are concerned about their child’s weight and future health, yet cannot financially access these services, are presented with the arduous task of keeping their child[ren] healthy and “going it alone”.

## **2.5 Summary.**

Much is known about determinants of childhood overweight and obesity. Descriptive, behavioral, and interventional research and theoretical frameworks have been studied in attempt to discover the Holy Grail of weight loss and the key to creating healthier behaviors, phenomena which has eluded investigators and scientists. The majority of pediatric studies adhere to the pervasive positivistic tradition of prescribed interventions aimed at diet and exercise regardless of the lived world of the child, parent, and family (Cole, Waldrop, D'Auria, & Garner, 2006; IOTF, 2004).

Over the last decade, critics of the received view of scientific tradition have called for novel research methods to include the perceived view (Meleis, 2007). New approaches using more culturally sensitive and holistic views are scarce in the pediatric

overweight and obesity literature. Current methodologies have failed to acknowledge the unique situation parents face with their overweight or obese child. The literature and healthcare providers offer plausible answers. Advice for parents as they care for their children consists of promoting and providing healthy foods, abstaining from soda or sugary beverages, avoiding too much screen time, and encouraging their children to get plenty of exercise. It becomes increasingly more complicated for parents. They must weigh such prescribed measures against time constraints and economical and societal demands that may preclude these behaviors.

Our obesogenic culture and mixed messages by providers complicate the delicate situation. Parental worries over eating disorders and other psychologically detrimental disorders weigh heavily as they are advised by the medical community to control, mediate, and restrict what your children eat, how much they eat, and how much they exercise. How does a parent ensure healthy behaviors while being sensitive to the needs of their child and his or her developmental level?

Based on early findings, parents are most concerned with the health of their child. Weight status and obesity related disease serve as one source of potential threat to their child's future health and well being (Laurent, 2007). Vital questions need to be asked and answered. How do parents decide what to do to promote health for their child[ren]? What is the process in which they do so? How do the actions, interactions, and reactions of parents and children affect health-promoting behaviors? What barriers and facilitators do parents describe? Understanding how parents promote the health of their overweight or obese child in their lived world will provide invaluable information yet to be described

in the literature. The next logical step is to ask the parents. How do you promote the health of your overweight or obese child?

# Chapter 3

## Methodology

### 3.1 Purpose.

Informed by the grounded theory method, the aim of this study was to discover, explore, and explain how parents promote the health of their overweight or obese child. Implicit within this goal was to discover the worldview of the parents and to understand the context, properties, and dimensions in which this process occurred.

### 3.2 Methodological Framework.

A grounded theory approach provided the methodology for understanding the complex, dynamic process specific to health promotion by parents within the context of their world. Implicit within this approach and considered foundational to grounded theory is symbolic interactionism (Hutchinson & Skodol-Wilson, 2001; Manis & Meltzer, 1967). Within the paradigm of the social constructionist philosophy, symbolic interactionism lends itself as a theoretical orientation underpinning the grounded theory approach. The weaving of symbolic interactionism as a philosophical foundation for grounded theory allows for fuller discovery and explication of not only the process of parents promoting health of their overweight or obese child but the meaning, experience, and interpretation which are bound within that interaction as described by parents.

*Symbolic interactionism.* Symbolic interactionism stems from the philosophical ideas of George Mead (1934) and is further defined and coined by his student, Herbert Blumer (1969). The premise of symbolic interactionism rests upon three central tenets. Humans act toward objects, ideals, persons, and situations on the basis of held meanings.

These meanings stem from one's social interaction with others and are then modified and interpreted by the self. Individuals act as they do because of how they define a situation based on reconstructed experiences and present events (Mead cited in Glaser & Strauss, 1967a). Humans are active and creative with a direct role in shaping the environment in which they live and cannot be separated from the research process (Manis & Meltzer, 1967). Their behavior is adaptive to the environment and relies on selective attention to and perception of what is important to them (Manis & Meltzer, 1967). Symbolic interactionism expands our knowledge of contexts within the grounded theory process. It acknowledges the symbolism associated with health and weight, and the parents' and children's held meaning of these factors respective to their lived world, therefore, allowing the investigator to "feel her way" inside the experience of the informant (Blumer, 1967). Consequently, a richer, fuller, more evocative theory will emerge.

***Grounded theory.*** Grounded theory seeks to discover relevant conditions and determine how humans respond to these conditions. In an attempt to increase the social scientist's capacity for theory generation and utilization, Glaser and Strauss (Glaser, 1998; Glaser & Strauss, 1967b) developed a qualitative research method which allows for the scholarly study of human social and behavioral phenomena by means of a constant comparative research method. As data is generated, a process of continual reflection, probing, memoing, and constant reiterative comparison is crucial (Morse & Richards, 2002). The tradition of grounded theory utilizes substantive and theoretical coding of the data to generate concepts and relationships with increasing abstraction as the core basic social process (BSP) is revealed (Glaser, 1998; Morse & Richards, 2002; Strauss & Corbin, 1998). Grounded theory offers both an inductive approach through empirical

data generation and a deductive approach through constant comparative data analysis and memoing (Hutchinson & Skodol-Wilson, 2001). Importantly, grounded theory does not aim for the positivistic definition of "truth" but conceptualizes the BSP through grounded data within the context of the participant's lived world (Glaser, 1978; Glaser & Strauss, 1967b).

### **3.3 Setting.**

The majority of this study was conducted in the state of Vermont and to a lesser degree in Upstate New York. In Vermont approximately 11% of children, grades 8 through 12 are overweight and an additional 15% are at risk for overweight (VDH, 2006). The prevalence of overweight children age 6 to 11 years old is 18% in New York (DiNapoli, 2008). Healthy Vermonters 2010 goals are to reduce the percentage of youth who are overweight to 5% from the reported 11% in 2003 by encouraging health-promoting behaviors (VDH, 2006).

### **3.4 Ethical Considerations.**

Permission to conduct this study was obtained from the Duquesne University Institutional Review Board (IRB). Upon IRB approval, informed consent was provided both verbally and in writing to the parent prior to data collection (Appendix 1). The investigator described the study to each informant before obtaining formal written informed consent. Informants were asked to read the consent form, and the meaning of each section was verbally clarified. Opportunities were provided to ask questions during the review of the consent form, and as necessary. The consent form included information about the details of the study, risks and benefits of participation, right to withdraw, and assurance of confidentiality. Participation was voluntary. Participants were informed that

consent could be withdrawn at any time during the project without explanation. Ethical considerations related to data collection focused on honoring the privacy and dignity of the informants. All written memos, journals, field notes, transcripts, audiotapes, and consent and demographic forms were stored in a locked safe in the investigator's home. With the exception of identifiers, all data, field and personal notes were transcribed verbatim and entered into password encrypted qualitative software data manager program, NVivo 8 (QSR International, 2008).

Anonymity of informants was maintained by the use of a pseudonym that avoided the use of names and identifiers in the process of recording and transcribing data. Audiotapes, transcribed notes, and field journals were only used for the purpose of data analysis. Five years following completion of the study raw data will be destroyed, digital voice files shall be deleted, and paper documents shall be shredded.

The importance of confidentiality and securing the audiotapes and transcribed notes was reviewed with each transcriptionist. Both transcriptionists read and signed a confidentiality agreement to ensure the confidentiality of all informants and the data accessed through transcribing audiotapes (Appendix 2). No harm was anticipated to any participant other than that which might occur in everyday life. No incidences of emotional distress by the participant occurred throughout the interviewing and data collection process and no reportable events to the IRB were encountered.

### **3.5 Participants.**

*Inclusion criteria.* The inclusion criteria for study participation consisted of English speaking adults over the age of 18 of either gender who assumed the active role of parent or guardian and was responsible for the primary needs of the child, 9-14 years

old, who was biological, adopted, or under guardianship for greater than one year. Eligible participants' self reported child height and weight measurements which met the IOTF definition of child overweight or obesity (Lobstein & Jackson-Leach, 2007).

***Participant recruitment.*** Participants were recruited initially through advertisements in the public domain and purposeful sampling from colleague referrals and known contacts of the principal investigator. Study fliers were posted in common areas such as primary care and specialty care health clinics, banks, grocery stores, and in other areas freely accessible to the public (Appendix 3). Colleague referrals were initiated by means of individual distribution of study fliers to interested individuals (Appendix 4).

Participant recruitment occurred over a 9 month period of time. Recruitment of participants proved more difficult than anticipated. Consequently, after 6 months the investigator sought approval from the Duquesne University IRB to enhance recruitment by advertising in regional newspapers and like publications (Appendix 5) which provided the remainder of participants necessary for study completion. During this time subsequent sampling methods included word of mouth. Consistent with grounded theory methods, theoretical sampling was implemented as data analysis revealed avenues of inquiry requiring further exploration and investigation (Corbin & Strauss, 2008; Strauss & Corbin, 1998). Fathers were particularly difficult enroll. Access to this population occurred primarily through snowball sampling of mother participants. Interested fathers contacted the investigator directly. At no time during data collection was third party contact information obtained or sought.

Self-identified willing participants contacted the investigator by phone or e-mail. After agreement to participate and subsequent meeting of participant criteria, individuals signed an informed consent form. Individual interviews were scheduled at a comfortable location that was agreeable to both the investigator and participant. Two interviews were conducted by phone. Three participants preferred to be interviewed in their homes. The remaining participants were interviewed in public areas such as a coffee shop or library.

Interviews lasted approximately 20-90 minutes and occurred on only one session. Only one couple was interviewed together, the remaining participants were interviewed on separate occasions. A \$20 honorarium was given at the conclusion of the interview as a token of appreciation for participant time, travel, and assistance with the study. The honorarium was mailed to phone participants following the completion of the phone interview the following day. A follow up email one week later was sent to confirm receipt.

### **3.6 Data Collection.**

The interview began with the collection of demographic information about the participant, the child, and the child's father. To capture the richness and complexity of the parenting experience, several open ended semi-structured questions were posed to guide individual interviews (Appendix 6). Each interview began with the question, "How did you come to realize your child was overweight?" and continued from there. This was a flexible interview guide and questions varied in relation to the participant's responses. During the process of interviewing, data generation, and data analysis supplementary interview questions were required for further exploration or to support or explain evolving concepts, themes, and linkages (Corbin & Strauss, 2008; Strauss & Corbin,

1998). As data collection continued and gaps in data emerged or concepts reached proper density theoretical analysis determined further inquiry. Additional data included memoing, journaling, fieldnotes, and other personal or theoretical notes by the principle investigator throughout the course of the study. These observations, ideas, and thoughts served to enhance the self-awareness of the principle investigator and her potential biases and identify non-verbal behavior in which meaning was transmitted. Two of the study participants who voluntarily came forth received their healthcare from the investigator. On these occasions the investigator gave additional assurances to the participant that their thoughts, recollections, beliefs, and ideas would not impinge upon the healthcare provider-patient relationship. All attempts were made by the investigator to remove any perceived power imbalance by the participant. Care was taken to “bracket” personal feelings and reflection to ensure the investigator could objectively search out and understand their world without judgment and preconceptions (Hutchinson & Skodol-Wilson, 2001).

### **3.7 Data Analysis.**

Consistent with grounded theory methodology, data was continually coded and analyzed beginning with the onset of data collection. Ongoing exploration through comparative analysis provided direction and guidance until saturation was achieved. Strauss and Corbin’s (Corbin & Strauss, 2008; Strauss & Corbin, 1998) paradigm model of data analysis allowed for coding categories and properties which allow substantive and theoretical codes to emerge, causal conditions to be revealed, and context to be described. The investigator continually searched the data for meaningful “dimensions, phrases, properties, strategies, consequences, and contexts of behavior” (Hutchinson & Skodol-

Wilson, 2001, p. 217). With increasingly higher levels of abstraction the core BSP was revealed within the participant's words (Glaser, 1978, 1992, 1998; Strauss & Corbin, 1998). For this study saturation was reached by interview thirteen. The data collection process continued for an additional 4 interviews to ensure broad dense core concepts, tightly linked relationships, and theoretical parsimony. With assistance from the dissertation committee, the criteria for judging conceptual description and theory was based upon Strauss and Corbin's (Corbin & Strauss, 2008; Strauss & Corbin, 1998) scholarly view of reproducibility, generalizability, and the adequacy of the research process.

### **3.8 Methodological Rigor.**

Qualitative methods are no less rigorous than those employed in quantitative research. The positivistic concept of reliability and validity requires reconceptualization in qualitative methodologies. Lincoln and Guba (1985) redefine the means of judging rigor to be more congruent with the naturalistic paradigm. Reliability or "consistency" is rather inherent in qualitative methods and more specifically in grounded theory. Through constant comparative methods of data analysis the data was consistently and systematically reviewed for themes and patterns (Creswell, 2003). Contrary cases and unusual conditions or occurrences were investigated, explored, and described enhancing the reliability throughout the research process (Hutchinson & Skodol-Wilson, 2001).

Trustworthiness of the study was based on two methods outlined by Lincoln and Guba (1985), member checking and audit trails. Member checking was both formal and informal. During data collection participants were asked to correct errors of fact or interpretation during the interview process. This form of informal member checking

allowed the principle investigator immediate validity of categories, interpretations, and constructions as the data evolved. As further information was obtained, data was confirmed, and clarifications were made. At the completion of data collection participants were sent a copy of the theoretical model and requested to freely comment on its explanatory power and truthfulness. Participants were asked if the theoretical model explained the how, what, and why of promoting health for their overweight or obese child and what were the relevant contextual factors in doing so. This served as the method of formal member checking in addition to expert checking by the dissertation committee (Green, Creswell, Shope, & Clark, 2007). Each provided complementary avenues of establishing trustworthiness for this study.

Confirmability or credibility was achieved through audit trails as defined by Lincoln and Guba (1985). This procedure allowed a systematic and, at times, a reiterative review of the research process from infancy to completion. Research events, personal writings in the form of memos and journaling, interviews, and fieldnotes were logged chronologically whereby the analytic decision making processes was externally verified by the dissertation committee (Green et al., 2007).

Although Strauss and Corbin (1998) do not outline criteria for evaluating theory genesis in grounded theory, they do provide criterion for judging the empirical grounding of a research study. During the research process and theory development the following questions were utilized to ensure such findings were from the voice of the informant and grounded within the data. They were:

1. Are the concepts generated from the study itself?

2. Have linkages been made between concepts and are they systematically related?
3. Are there tight linkages between concepts and significant density within the categories?
4. Is variation inherent within the theory?
5. Can this variation be explained given the conditions set forth?
6. Has process been accounted for?
7. Are the theoretical foundations significant?
8. Will the theory be parsimonious and withstand ardent and scholarly critique while directing further avenues of inquiry?

### **3.9 Summary.**

The role of the parent is a difficult one. The economic, social, cultural, developmental, and environmental factors place a complex burden upon the parent. This parental burden is only magnified when adding such a life threatening disease such as obesity to the mix. Surprisingly, this avenue of inquiry has received little attention in general and no attention in particular with regard to how parents promote the health of their child. Preliminary findings suggest parents are more concerned with the health of their children than their weight status necessitating further inquiry within this domain of research (Laurent, 2007). Guided by symbolic interactionism, grounded theory offered the investigator insight and understanding into the world of the parent as they struggle with promoting health for their overweight and obese child. Discovery of this process illuminated the multifaceted, complex world particular to this population. How do parents know what to do? How do parents decide what to do? How do parents “do what

they do”? Such knowledge is invaluable for other parents, investigators, and the individuals who support them in their pursuit for healthy children. A healthy generation of children translates to less healthcare burden and a more productive fulfilled family, child, and society. Ultimately, the utilization of evidenced based practice rooted in theory will contribute to the health of children that is promoted and preserved.

# Chapter 4

## Findings

The purpose of this study was to discover, explore, and explicate how parents promote the health of their overweight or obese child. Through inductive and deductive processes grounded theory enabled the investigator to discover the basic social process parents use to make change and thereby promote the health of their overweight or obese child within their lived world. Transcribed interviews, investigator field notes, reflective journals, and investigator memos served as data from which theory construction evolved inductively. As data was generated a constant comparative method allowed for continual data analysis and reflection throughout the data collection process (Strauss & Corbin, 1998). Interviews with 17 parents provided extensive data from which the investigator was able to construct a substantive theoretical process grounded in the participant's words, thoughts, and beliefs. The following research questions provided the data from which the theory was generated.

1. How do parents promote the health of their overweight or obese child?
2. What processes do parents use to promote their child's health within the context of overweight or obesity?
3. What is it like for parents as they promote the health of their overweight or obese child and how does it affect the choices they make for their child?

This chapter will describe how parents promote the health of their overweight or obese child by presenting data in the form of participant quotes. The process of coding, analysis, and ongoing data comparison will be described to demonstrate the rigor and

truthfulness behind the development of the core process concepts, sub-categories, core process linking concepts, basic social process, and the emergence of the substantive theory. The contextual conditions embedded within the lived world and their held meaning will be discussed along with the strategies parents implement to make change and the barriers they face in the process of promoting the health of their child.

#### **4.1 Study Participants.**

A total of 17 participants were interviewed for this study. Three participants from a previous unpublished mini-study conducted from July to November of 2008 were rolled into the larger study conducted from March to December of 2009. Of the 17 participants, all were self-identified as Caucasian, three women were single parents, and the remaining 14 parents were married or identified a significant partner. All male participants (n=4) were married to women who participated in the study. Three of four married couples were interviewed individually by choice. Only one married couple preferred to be interviewed together. One participant was a grandparent but met inclusion study criteria fulfilling the parenting role of the child. Nine participants were obese, three were overweight, and five were normal weight as defined by the CDC (2010).

Study participant children's ages ranged from 9-14 years old. All but two children (n=13) were classified as obese according to IOTF definitions. Although the remaining two children met the criteria for overweight status and were just below the 95 BMI percentile cut-point for clinical obesity (Lobstein & Jackson-Leach, 2007). Reported participant and child weight characteristics can be found in Table 4.1.

Table 4.1

*Participant and Child Pseudonyms and Reported Weight Characteristics\**

Parent	Child	Parental Age	Parent BMI	Child Age	Child BMI	Child BMI%
Karen	William	34	36	10	27.6	98.8
Sharyl	Kolby	38	21.1	12	28.4	98.3
Cate	Ned	42	34.7	14	35.5	99.3
Tom	Mary	44	31.3	14	33	98.5
Julie	Mary	40	27.4	14	33	98.5
Anna	Bill	38	40.5	14	25.6	94.2
Peggy	Meghan	54	35.8	13	27.5	96.3
Sara	Alice	38	30.9	12	47.6	99.8
Kathy	Stephanie	34	39.6	11	29	98.6
Joyce	Nina	39	26.6	14	32.7	98.5
Serena	Alisha	55	19.2	13	36.7	99.3
Charlie	Regina	40	28.5	12	23.8	92.4
Kylie	Regina	39	23.6	12	26.6	96
Barb	Aaron	48	33.5	9	29.6	99.4
Alex	Aaron	55	39.2	9	32.1	99.6
Kammie	Maggie	36	23.4	10	23.1	95.3
Mark	Maggie	43	26.1	10	24	96.4

*Note.* \*Child BMI %: Overweight > 85 %, Obese > 95% (Lobstein & Jackson-Leach, 2007). Adult BMI: Normal 18.5- 24.9, Overweight 25-29.9, Obese >30 (CDC, 2010).

There was wide variation among participant reported child at-risk-for behaviors such as consumption of sugar-sweetened beverages such as soda, sports drinks, and other sugar laden beverages and screen time (computer, television, and video games) as seen in Table 4.2. Only three children were taking medications. Of these three children, one girl was taking cholesterol and thyroid medication related to her obesity. The other two children were taking inhaled steroids and stimulants as treatment their asthma and attention deficit disorder, respectively. Additional participant, child, and participant partner demographic data and characteristics are presented in Table 4.2. Reported partner weight was that of the child’s parent regardless of biology. Certain demographic data

and characteristics from participants in the mini study (n=3) were not collected altering the total number of datum collected for specific characteristics.

Table 4.2

*Study Demographics.*

---

Relationship to child	n = 17
Biological parent	13 (76%)
Adoptive parent	3 (18)
Grandparent (biological)	1 (6)
Ethnicity - child	n = 13
Caucasian	9 (70%)
Non-black Caucasian	1 (7.5)
Biracial (Black/Caucasian)	3 (22.5)
Ethnicity - participant	n = 17
Caucasian	17 (100%)
*Educational level (in years)- participant	n = 14
Mean	13
Median	14
Range	12-18
*Educational level (in years) - partner	n = 13 <sup>+</sup>
Mean	11
Median	14
Range	8-18
*BMI - partner	n = 13 <sup>+</sup>
Mean	26
Median	27.6
Range	17.8-40.3
Pubertal status	n = 13
Pre-pubertal	6 (46%)
Pubertal	3 (23)
Post-pubertal	4 (31)
*Religious affiliation - self identified	n = 14
Christian	3 (22%)
Catholic	7 (50)
Jehovah's Witness	1 (7)
Protestant	1 (7)
Unitarian	1 (7)
None	1 (7)

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Table 4.2 *continued*.

*Active religious practice	n = 14
Yes	6 (43%)
No	7 (50)
Inconsistent	1 (7)
*Consumption of sugar sweet beverages (drinks/week)	n = 10
Mean	8.3
Median	1
Range	0-56
Screen time (total hours/week)	n = 13
Mean	20.7
Median	21
Range	10-54
Medication use	n = 13
Yes	4 (31)
No	9 (69)
Total household income (U.S. dollars)	n = 14
Mean	57,000
Median	62,000
Range	0-100,000

*Note.* \* Data pooled from mini study (n = 3) in which certain characteristics were not collected. †Data unknown for 1 participant.

## 4.2 Framework for Coding, Data Analysis, & Theory Development.

**Open coding.** The analytic process began with the first interview using the method of open coding. Open coding is a technique for breaking open the data to identify, define, and develop categories through their properties and dimensions representing the phenomena under study. This type of microanalysis breaks down the data into discrete fragments that allows the investigator to “uncover, name, and develop concepts” (Strauss & Corbin, 1998, p. 102) and provides for closer inspection. Data is analyzed for similarities and differences. Key events, terms, concepts, and themes are identified from deep within the data. For example, the concept of comfort was identified early and frequently in data collection by participants to describe comfort eating, a

process of eating either by themselves or by their child to feel better emotionally. Through continual open coding and comparative analysis the concept of comfort expanded to include multiple properties and dimensions such as eating for comfort, taking comfort in friends, finding comfort in oversized clothing, comfortable habits, comfort by proxy, and comfort in their surroundings. Worry was identified in the first interview and in each subsequent interview during data collection. Through open coding several properties, such as the worry for current health, future health, self-esteem, and public perception were identified. There was broad dimensional variation ranging from “I worry all the time” and “I worry about what people will think” to “I worry about 4 to 5 years from now” and “we are just dodging a bullet” or “it can’t be good for her heart”. Open coding allowed the investigator full exploration into the theme of worry and how it varied among participants and within sub-categories.

The process of open coding revealed numerous codes that represented key elements, concepts, or data fragments the investigator discovered during data analysis (see Table 4.3). To ensure grounding of data in the words of the participants *in vivo* codes were maximized. *In vivo* coding involves using the words of the participant to identify fragments of data to “preserve participants meanings of their views and actions” (Weiner, 2007, p. 303). For example, the code identified as the *turtle effect* was used by a father to describe the physical act of shrinking back into the self that his daughter does when he tells her to stop eating because of her weight.

Table 4.3

*Results of Open Coding.*

Barriers	Activities	Blame myself	Bribe her
Called him fat	9,000 things to do	Dad	Doesn't miss out
Eats out of boredom	Balance	Fighting a bigger issue	Focus on health
Glorious fat	Fell in love with food	Food police	Emotional eater
Frustration	Give him the nod	Go to parent	Grandma meddles
Grows out of it	Healthcare provider	Porky and fat	The whole package
High 5	Needs to click	Keep her healthy	Light and dark
Lose the roll	Husky	Girl with curves	Mom's the boss
Medical condition	Speed bump	Natural response	Changing habits
Consistency	Provide good examples	Room for improvement	School
My partner	Small battles	Supports	Teach him
Television	Out of control	Turtle effect	We're a team
What is healthy	Worries	Wish for	You've never been fat
Difficult child	Creating change	Sneaky eater	Tastes so good I ate so much
Pig mentality	Comfort	Come to me	Finding the hook
Family history	When I was a kid	People think I'm mean	Not in front of others
Shuts me down	This is not okay	Dodging a bullet	United front
Buy in	Creating the gel	A genetic thing	Never been thin
Used to be a skinny kid	Stressful event	I didn't see it	Makes me feel bad
I'm embarrassed	Come play with me	This is work	She/he is very active
Self esteem	You think I'm fat	Wish for better friends	All we can afford
Just a kid	You need to eat	Give him a complex	Make a good choice
I lost 5 pounds	A healthy body	5 years from now	I watch her more

Co-occurrent with the onset of open coding, the investigator initiated memo writing. Early memo construction allowed the investigator to capture novel thoughts, emerging ideas and relationships, and future areas of exploration as data collection

continued. The process of coding through line-by-line analysis continued until no new categories emerged and rich density of their properties and dimensions was achieved.

***Axial coding.*** Axial coding is “the process of relating categories to their subcategories” (Strauss & Corbin, 1998, p. 123). During axial coding the data is analyzed for structure and process. Linkages between concepts at the level of properties and dimensions are made by examining, comparing, and contrasting data for their pre-conditions, context, action strategies, and consequences in which a category or phenomenon is situated. This is a crucial step in theory development as it allows the investigator to discover how concepts and categories relate to one another (Corbin & Strauss, 2008; Strauss & Corbin, 1998) and reassembles the fractured data during earlier analysis adding richness, depth, and structure to emerging concepts and categories (Charmez, 2006).

An example of axial coding can be seen using the *in vivo* code of food police that became apparent early in data collection. Food police was used by several participants to describe their negative feelings associated with strict or “police like” moderating, monitoring, and/or saying no to their children’s choice or quantity of food and/or their eating patterns. Food police was closely linked with several other identified categories and/or concepts. Categories such as worry, overweight awareness, health status, and the child’s relationship with food directly impacted the dimensional range of the food police. Parents who demonstrated more worry, greater awareness of their child’s weight status and dysfunctional eating patterns, and/or concerns for their child’s current health were more likely to engage in the food police such as “moderating everything”, “taking stuff away”, considering a “lock box”, “[getting] rid of candy and chips”, and “avoid[ing] crap

in the house”. Consequences of these actions resulted in altering the availability and access of enticing foods and thereby changing the diet to healthier foods or minimizing consumption of non-nutritious foods. Food police served as an action strategy for making change. A full description of the results from axial coding can be found in Table 4.4. Refinement and revision of concepts and categories and their linkages continued throughout analysis by means of ongoing investigator reflective journaling and memo writing until theoretical saturation was achieved.

Table 4.4

*Results from Axial Coding.*

Predisposition	Raising awareness
Heightened awareness	Lead parent (Mom’s the boss)
Discovery	Parental buy-in
Worry	Food police
Teamwork	United front
Competing demands	Child buy-in
Intimate relationship with food	Comfort
Just a kid	Avoiding the trigger
Grandparents	Yummy and fast
Dad	School
Fatness	Barriers
Strategies	Creating change
Blame, frustration, and embarrassment	Turtle effect
Stressful event	Speed bump
Television	Not in front of others
Consistency	Would just go crazy
Light and dark	Community
Porky and fat	Balance
Getting part of it	The whole package

**Selective coding.** Selective coding represented the final stage of analysis whereby categories have achieved maximum density and the investigator turns to the process of “integrating and refining” categories thereby achieving increased levels of abstraction in

the form of core process concepts. It is these core process concepts that serve as the foundation for theory construction and development (Strauss & Corbin, 1998). In the final analysis five core process concepts were identified and used as the basis for theory construction (see Table 4.5). They were discovery, taking the lead, making change, engagement, and teamwork. Each core process concept was dense in the data, parsimonious, and grounded in the words of the participant. Parental buy-in, parental worry, finding the hook, and creating the gel were the core process linking concepts that moved the parent toward the basic social process of making change. These processes were dynamic, fluid, and clearly dependent on the contextual elements. In sum, the core process concepts, core process linking concepts, and contextual elements formed the substantive theory, *The Pathway to Making Change*.

The remainder of this chapter presents an in depth discussion of the theoretical model, *The Pathway to Making Change*, it's concepts, processes, relationships, and contextual conditions in full. Prior to this, the philosophical orientation of symbolic interactionism will provide the infrastructure in which the data is interpreted and the theory is framed.

Table 4.5

*The Pathway to Making Change: The Relationship of Core Social Process Concepts and Their Linkages to Attributes and Data.*

Core Process Concept	Attributes of Core Process Concept	Linking Process Concept	Participants Quotes
Discovery	Predisposition		“Some people have a genetic makeup where they can eat anything they want and their metabolism is just different.”
	Turning point		“I think that his weight really started coming on probably four or five years ago. And I think there was stress within our household and shortly after that we had to sell the house and move into an apartment. I think that moving into the apartment was a big factor in the amount of weight he has gained.”
	Husky build Compared to others		“He’s husky looking.”; “A girl with curves.” “I’m heavy. She’s insane, out of control. And then we have the little one who still weighs like 40 pounds. She’s little skinny Minnie. Okay. I have polar opposite children here.”
	Healthcare provider	Parental buy-in	“He pretty much only said, you know, he can’t gain any more weight so that he can grow taller and grow out of it.” “I think – the time that he weighed himself, I think he was like 110 or something. And I’m like, that’s not okay. That is not okay. I said, that’s not even funny. And I said, that’s just not safe. It’s not healthy.”

Table 4.5 *Continued.*

Core Process Concept	Attributes of Core Process Concept		Linking Process Concept	Participants Quotes
Taking the lead	Mom's the boss			<p>"My wife is very much the – [she] wears the pants around here"</p> <p>"I just feel – I know she doesn't like how she looks. She's very self-conscious of her appearance. And it just breaks my heart. You know and I do what I can to re-encourage her and reinforce all of the positive aspects and how healthy and athletic and strong she is. But she sees in the mirror what she sees in the mirror. And you know, her mind is convinced by what her eyes see."</p>
	Parental angst			
69 Making change	Strategies:	Food police	Parental worry	<p>"So I know in my mind that oh my gosh, and you hear on TV, you know how obese kids are now. I'd much rather not have to deal with that. Life's hard enough. And, and the complications from that are so big."</p> <p>"There was one day I caught her on her 3rd bottle [of soda] and I went and took it and dumped it down the drain. You just wasted that. But, you didn't need it. So, it's gone."</p> <p>"You've got to move your body. The more you move your body, the healthier your body is."</p> <p>"I have some pretty – when I say strict, like I follow some guidelines in my own diet. You know, I try not to eat sweets later in the day, and she knows that. She sees that."</p>
		Active bodies		
		Role modeling		

Table 4.5 *Continued.*

Core Process Concept	Attributes of Core Process Concept	Linking Process Concept	Participants Quotes
Making Change (continued)		Hitting the media maximum	“It’s still a big issue – a big issue. I’ve got a bias against TV anyways. I’d rather read a book, although I do watch some TV. But [my son] is very much into watching TV.”
	Barriers:	Competing demands	“Sometimes I just – I can just say no and just keep it up. And then other times, I’m just, you know, the little one’s screaming, the cat needs food, there’s 9,000 other things going on and it’s just like, fine. Go. Whatever you want. Go get it. Eat. Fine.”
		Come to me	“I want him to be able to come to me when he decides that enough is enough and he wants to do more to lose the weight.”
		Food intimacy	“He is very much into the tactile. He’s very tactile. And I think that food is another piece of that. You know, you figure you’re tasting it and you’re smelling it. You know, I think that that kind of thing is very – you know, stimulating for him to have that kind of thing.”
		Shuts me down	“Leave him alone. He’s a kid”
		Finding the hook	“You know, get the kid to buy into it. That’s really where – I think that’s really where you’re going to get a lot of mileage is to have the kid buy into it”.

Table 4.5 *Continued.*

Core Process Concept	Attributes of Core Process Concept	Linking Process Concept	Participants Quotes
Engagement	Motivating force		“She loves the library. She loves the horses. So I’m holding it out as, you can have those things but here’s what you need to do to get it and she’s open to that.”
	Influential peers		“She gave up [on boxing]. And her friend was with her and her friend said, oh, I’m not going in there. So she let her friend influence her.”
	Social and fun		“So my mom was trying to find something that was geared toward kids. So she found [a program for overweight kids]. She was like, hey, how about we try this. Okay. We’ll try it and see if it works. [My daughter] was gung ho for it. She had a ball at every meeting.”
Teamwork	Balance & Consistency	Creating the gel	“I’ll say, [are] you going to play [sports] this year? and, you know, if he says, yes then we make sure he’s got the tools to do it and the time.”
	United front		“That’s what I try to say to the kids is that it’s all about balance. It’s all out there and I want it all, but tomorrow is a new day. And if I didn’t have apple pie today, I had M&M’s, well, tomorrow I’ll have apple pie.”
			“So that way, it’s a little bit easier because then they can’t wear me down because I can say no, your mother and I have already made an agreement. We’ve already decided.”

Table 4.5 *Continued*

Core Process Concept	Attributes of Core Process Concept	Linking Process Concept	Participants Quotes
Teamwork (continued)	Supportive others		<p>“[My mother] and my mother-in-law support what I say about food. You know, when I’ll say to the kids, you’re done – no matter whose table I’m sitting at, they’ll say, well, mom says you’re done. You’re done. If I say there’s no dessert today they’ve already had a treat, they both support that. So I feel like our extended families have been good.”</p>
	The anti-team		<p>“[My husband’s] is not an approach that I think works. And, we have talked about that before cause he just kind of comes out and says [things]”.</p>
	Speed bump		<p>“I think it’s made us step back and go, okay, we can do this better which will in turn help us and help her. I think we just look at it as part of us. Another speed bump, something to get over.”</p>
	The whole package		<p>“I want her to feel comfortable in her body and who she is. I don’t want her to be obsessive about her weight, but I want her to be healthy and I don’t want her to have to be embarrassed by who she is or what she is and I think it comes down to making sure that she is happy deep down inside.”</p>

*Methodological position of symbolic interactionism on data analysis and theory development.* The philosophical premise of symbolic interactionism places the symbol as the heart of social interaction. The symbol constitutes a social object used to represent what individuals, groups, and society agree it shall represent. The symbol conveys held meanings. It is our guide to what we see, what we notice, how we interpret, how we define, and finally, how we act. Symbolic interactionism contends that humans are active participants in their world and by nature are influenced by the environment around them. Humans think, define, are influenced by past experiences, and make decisions based on perceptions within the immediate situation. This process is in a continual state of unfolding and accounts for the unique, dynamic, and unpredictability of human nature and interaction (Blumer, 1969; Charon, 2004). It highlights the complexity of human behavior when examining, describing, and interpreting interactions between persons and symbols.

During the research process attention was given to the parents held meaning of body shape as fatness and health. These two symbols of body shape and health influenced current and future decisions, actions, interactions, and ultimately the world-view of the parent. The overarching contextual conditions provided the investigator with an understanding of the variability of actions revealed during data analysis and the complexity that situations posed for parents as they promoted the health for their overweight or obese child.

Through this lens symbolic interactionism guided the investigator in finding meaning in the life processes of participants involved within the context of their lived world (Blumer, 1969). These processes will be described in terms of its parts, yet

describe the wholeness of how parents make changes in relationship to their child's overweight or obesity.

### 4.3 Overarching Contextual Conditions.

To fully understand the phenomena of interest one must describe the context and conditions under which the phenomena exist. Through use of the conditional/consequential matrix described by Strauss and Corbin (1998), this investigator was able to identify the micro and macro conditions that affected and gave shape and meaning to the theoretical process (see Table 4.6). Micro-conditions are those conditions most immediately impacting the individual's involvement in the situation. Macro-conditions are increasing social units represented by increasingly larger concentric circles moving outwardly around the individual evolving into macro-conditions that may co-vary in numerous ways (Strauss & Corbin, 1998). The distinction between the two is artificial and their influence is bi-directional (Corbin & Strauss, 2008). The following will discuss how these conditions affect parents as they promoted the health of their overweight or obese child.

Table 4.6  
*Overarching contextual conditions.*

Macro-conditions	Socio-cultural norms and values Stigma Community and Environment Economics School system
Micro-conditions	Parental style, beliefs, and upbringing Child attributes

*Micro-conditions.* Strauss and Corbin (1998) use the term micro-conditions to describe contextual elements that are “narrow in scope and possible impact” (p.181). The investigator used this definition to describe contextual conditions at the level of the participant. Although the micro-conditions of the individual participant will be presented, the consequences related to these conditions are only narrow in definition in that they directly affect the action of making change within their microcosm. Ultimately, the consequences may indeed have far reaching effects emphasizing the arbitrary line that separates micro-conditions from macro-conditions.

*Parental style, beliefs, & upbringing.* Consistent throughout the study were the participant’s variations in approach to addressing their child’s weight. Mothers and fathers used different styles, approaches, and techniques to make change and engage their child. Fathers approached making changes for their child as “black and white” and “fix it”. It was a simplistic and straightforward. Karen described her husband’s approach:

[His dad] is not as good at the educating part... just that you should not have cookies in the house, period. I shouldn’t bring cookies home and shouldn’t let [my son] have candy, you know. That kind of thing. [His dad] will say, William, you don’t need that, you know. He is kind of like that with everything; it is more black and white for him.

Although this is through the lens of the mother, fathers confirmed they saw things differently as seen in the interview with Tom. He said:

There was one day I caught her on her 3<sup>rd</sup> bottle [of soda] and I went and took it and dumped it down the drain. [My daughter said] you just wasted that. But [I said], you didn’t need it. So, it’s gone.

Despite the perspective of fathers to be more simplistic and straightforward, their actions were construed as more permissive by themselves and by mothers during a father-child interaction. Fathers were more likely to “give in” to their child, be a “push over”,

the “weak link”, resort to “bribery”, “ be inconsistent”, and /or “buy affections” when compared to mothers. Fathers and male partners (i.e. fiancée or boyfriend) of mothers within the household were more likely to defer to the child’s mother when it came to the ultimate decision making process. For example Mark stated, “My wife wears the pants around here, I guess, for lack of a better term”. Similarly, fathers and mothers alike described moms as “the boss”.

Parenting styles with mothers were more likely to approach and engage in making change through open dialogue, negotiating, and educating their child with regard to making better choices. Mothers presented an open dialogue as seen with Kammie and her daughter, “If you want a snack, you have to... let’s talk about it and we’ll make a choice about what is an appropriate snack for this time of day”. Sharyl described her approach as a parent, “[We] just talk about, I guess education about, I guess it’s like nutrition. Cause he will ask me, you know, how do I know whether to choose this or this and I’ll try to help him with making good food choices”. Mothers were less likely to use directives, mandates, and bribery to affect change or engage their child.

For several parents their early experiences with food affected their attitudes toward food for their children. Growing up hungry or deprived made them less likely to moderate or restrict their child’s food habits. For Anna this played a large role in her ability to moderate her son’s intake. She said:

Well my feeling is, if the kid is hungry, he’s going to have something, whether it be an apple or an orange or a Twinkie. Because I don’t always have apples and oranges or apples and bananas or whatever. I don’t always have it. And – and I don’t always have the Twinkies. But if they want something to tide them over for the next hour and a half, then they’re going to get something because I grew up very hungry a lot of the time. And my kids are going to eat whether it’s mealtime or it’s not mealtime.

For Kammie her childhood experiences with the strictness of her parents affected what foods she had in the house.

Like [when] I grew up – my parents were very strict and we didn't have a lot of junk in the house and I remember like going to people's houses and being like obsessed with having a snack. And like, let's have a snack now, because I knew that they had – their parents bought chips and – you know, cookies and stuff that my mother wouldn't buy. And I was – when I had my own children, I'm like, I am not going to have the kid that comes to a play date and begs for food. Because – and I do think it comes from feeling deprived.

The interweaving of parenting styles, beliefs, and upbringing of the parent created and informed their perspective and provided the backdrop for subsequent decisions and actions made while pursuing change for their child.

*Child attributes.* Equally important as the parental characteristics, are the native characteristics that the child brings to any interaction. Although parents, by definition, exert some type of control over their child, they are to an extent limited and influenced by the child's attributes, preferences, and wants. Parents described the nature of their child as being “difficult”, “stubborn”, “independent”, “frustrating”, or “strong minded” while others described their child as “a pleasure”, “he is a great kid”, or “she makes it easy”. For example, Alex portrayed his son as “frustrating as he simply will not do anything”. In contrast Peggy's daughter “is a pleasure. She is very easy going”. Parents who felt their children presented a more challenging disposition posed additional accommodations and, at times, barriers. Joyce described her daughter as “angry, she's irritable and then the next minute she's the sweetest little thing. She loves me”. These traits directly impacted their ability to make change, to engage their child, and to create teamwork.

***Macro-conditions.*** Strauss and Corbin (1998) define macro-conditions as conditions “which are broad in scope and possible impact” (p.181). Socio-cultural norms and values, stigma, community and environment, economics, and the school system were identified as over-arching global conditions affecting the process of making change for study participants.

*Socio-cultural norms & values.* Cultural norms are behavior patterns, values, beliefs, and attitudes that are strongly ingrained in an individual’s daily life. As a whole these values and beliefs define the rules of society (Gardiner & Kosmitzki, 2005). They exist in the sub-conscious of everyday life and influence the actions and interactions of all individuals by affecting their perspective towards life. This perspective guides our social interaction within our self and between others (Charon, 2004). Within U.S. society the mother has traditionally been the primary caregiver to the child. The mother cares for, rears, and educates the child, limiting the father’s parental role. The findings from this study suggest that mothers assume the majority of the responsibility in two parent households and all the responsibility in single parent households. Mothers related, “[Dad] is just kind of there” or it is “mostly mom” when it comes to parenting decisions. Tom provided an example of this by bringing his wife to the interview since “she was the boss” when it came to addressing his daughter’s weight. The context within in these norms placed mom as the lead parent in the process of making change for each participant.

Within our culture the symbol of the body is strongly linked to the internal characteristics of the person within (Reischer & Koo, 2004). From early childhood Western societies have transmitted the cultural value of physical attractiveness based on

body shape early in childhood. Individuals that are identified as thin are seen as nice, well liked, kind, and friendly (Feldman, Feldman, & Goodman, 1988). In contrast, individuals who are identified as fat are seen as lazy, cheaters, liars, and friendless (Feldman et al., 1988; Hill & Silver, 1995). The parental concern over the potential stigma faced by their child was of great concern and worry to participants. Mark related his concerns:

I remember I had a date to the prom when I was in high school. It was a woman in our class who kind of-befriended me a lot. She just kind of flirted and, whatever, with me. She was about 300 pounds and she wasn't going to the prom. So I invited her to go. And I just feel-I felt bad for her. I don't want my daughter to be that way.

Other parents shared similar concerns. Barb "thinks socially [it's] hard, because I think that you get a different sort of attention when you're obese. You know, you tend to be made fun of. I think there's a stigma". Joyce further described the negative stereotype of fatness.

I'm an adult, she's a child. So I can take the name calling from other people when I was heavier. When I was walking - whatever- oh, fat beatch - you know people are cruel. But now she's only 13 and she goes to school and she gets it.

The value of thinness and the stigma of fatness that follows were found in children as well as parents. Parents described their children as associating fatness with stupidity and ugliness. This was evident in the following examples of what participant's children would say to them: "I'm fat. I'm ugly", "I'm fat. I'm stupid", "I'm fat and I look so terrible in this", and "You don't know what it's like to be fat". The pervasive over-arching stigma attached to fatness given the societal value on thinness created worry

and motivation toward change by the parent and to a lesser extent, the child. This macro-condition served as the basis for worry and subsequent action on behalf of the parent.

Feeding practices and attitudes are learned and perpetuated within the environmental context of the culture in which one is reared (Gable & Lutz, 2000; Gardiner & Kosmitzki, 2005). Food plays a large role in defining family roles, rules, and traditions. It gives meaning to our social interactions. In this study the role of food as a vital part of social interactions was apparent. Charlie was raised in an Italian family and the role of food can be seen in the following excerpt:

I'm half Italian and basically my family was raised in an Italian environment, so food was always the necessity with everything. You don't feel good? Let's have something to eat. Somebody dies, let's have something to eat. Somebody gets married. Have something to eat. So I mean to me – what do you mean you're not hungry? Try to at least finish your plate.

Heritage was only part of the influence on food culture. Parents described the context of social gatherings with food at the heart of the gathering. Cate said:

[My son] went to a Halloween party last weekend and I watched as the, the mom had all the little sausage hot dogs and wrapped them in the blankets and brought out just like a tub of them and he came home and said, aw they were soooo good, I ate so many. It's frustrating, but I understand it. I... I understand being in that social situation and maybe not making the right choices.

Sharyl described a similar time with her son. She said:

He'll go to a birthday party which I was at one time and his friends all had like four, five pieces of pizza dipped in ranch dressing, you know, I mean horrible stuff and, you know, I don't want him to be excluded from that kind of thing.

The belief that food is part of the social interaction posed a barrier to making changes and promoting health for parents. The social gathering was a mechanism for eating foods that

would have otherwise been moderated. For example, Marks described eating at his in-laws.

Mark (M): [T]he kids' grandfather makes crepes and they're just spectacular. And they go there and he brags about how much each of them they've eaten – how many. He takes great pride in that....

Investigator: Have you ever tried talking to them?

M: I've considered it, but then again as I said earlier, they just take such great pride in how they cook and what they cook and how much the kids devour, and so I would struggle with popping that bubble.

Food, food choice, and the contextual condition of food in our society and culture exerted strong influence on the parents and children. There was a pre-conceived expectation on behalf of both parent and child of eating, eating more, and eating more calorie dense foods in social gatherings.

*Community and environment.* The vast landscape of rural Vermont places small towns without a centralized community. There is no public transportation throughout much of the state and towns do not share fiscal responsibility for community resources to a large extent. Community centers were either not easily accessible or available to parents. The physical environment played a variable role with regard to the ability of children to be active. For example, Cate described her living environment.

It is right on the road and there is back drop off to the river so there was not a lot of room to be outdoors...um... and we had two dogs at that point that ...that are different than the ones we have right now and to take them out for a walk meant putting them on a leash and there is a certain little area that we could go into, so it wasn't like [my son] could go out and play with the dogs. You walked the dog and then you go back in.

There were no community resources available which impacted the activity level of her and her son.

[T]here's not a real sense of community getting together and doing things. I don't know if that's because we're now out towards [the country]... I don't know if the City is.... it's when he was grade school it seemed like there were a lot more things like that going on.

In contrast, Kylie and Charlie used the local community club as a means for spending time together and being active.

The kids like the different programs that they have there. They have like the queen room and the different little kids' rooms plus the gym time and the kids just really enjoy going there, really enjoy going to the one room where they have that dance thing where you have to do the steps. And [my daughter will] do that for like an hour, just doing the dance and that. And it's just they really like it, so it's something that they like. And they like going swimming at different times.

Parents living in suburban environments faced other barriers. For example, bicycling on the city streets presented safety concerns for their children. Kylie stated:

I've had to – you know, like ride around with my kids a lot and really focus on the idea that you may think other people see you – never, ever assume that they do. You need to be a very defensive bike rider.

The climate affected the activity level of children. The cold long winters were hard for several parents. Kathy found “winters a bad time for us... we tend to stay in more”. Barb was concerned that “[She doesn't] know once the snow flies, whether we'll be able to get him [my son] outside”. Charlie found summers easier to maintain his daughter's weight. He said:

Summers prove to be easy for being able to maintain on the lighter side with our kids. It's because they're just out and about and so much more active. As it gets colder, like now and going into the winter, you know, there's only – there's less and less activities that they can stay [in for].

The impact of the environment and community was variable among participants. From a global aspect the type of environment in their lived world and/or the community

resources available to the parents in this study affected their ability to promote physical activity.

*Economics.* The socio-economic circumstances of the participants in this study were diverse. All but 5 participants described financial concerns with regard to healthy eating for their child. Foods such as fruits and vegetables were “more expensive”, “didn’t last”, and didn’t “fill them up”. Single parent households were more affected by financial hardship than two parent households. For example, Joyce received government assistance and food stamps in which:

[She] gets \$200 [worth of] food stamps a month to feed 4 people. [My son] who weighs 225 pounds, almost 230. He’s a football player. He’s big. [My other son]. My daughter. And me. And the food – in the middle of the month, I’ll be going to Food Cupboard.... when I don’t have – run out of food. They give you what they give you. You know. Canned goods. Yeah, you can’t pick and choose. It’s canned goods. Some of them are outdated. They give you what they got, which is usually canned goods, a half dozen eggs, rice, a thing of juice, and a little sausage if they have sausage. That’s it. Scraping and struggling.

Other parents described similar concerns. Peggy felt “it’s difficult just to, financially to eat healthier, you know. You can’t, you don’t have a lot of choices.” If finances were not a concern Kathy “would probably buy more of like the fresh fruits and vegetables and things like that, and less of the filler kind of stuff.”

Financial concerns were not restricted to food. Cate, a single mother, expressed the financial toll of many activities and sports for her child. For example, she said “Like the jujitsu is ten dollars a session... and.... there’s just, there are a lot of expenses if you want to go out and do a sport.” She goes on to say:

I would love to be able to spend three or four hundred dollars and say, okay, we have this membership....and we’re only to use .... two of the things. And, you know, we may go once a week, we may go

every couple of weeks. But to me we should just be walking if that's all we can really afford.

Two parent homes were more likely to express generalized financial strain. Barb and Alex described, "added expenses" while Mark felt financially "it's stressful". Although Barb and Mark did not explicitly describe the financial concerns over foods and activities, there were financial strains that were taking a toll on the family economics as a whole.

*School system.* All the participants in this study, with the exception of Charlie and Kylie, whose daughter was home schooled, had children in the public school system. Parental control was lessened to a great extent during school hours. The majority of parents found the schools posed a barrier to healthy eating. Barb found her son was able to "buy ice cream and Gatorade". Joyce reported her daughter had free access to "snack machines" and found her daughter ate "pizza everyday". Anna described her son's possible lunches of "hotdogs", "cheeseburgers", "bags of chips", and "they have lots of desserts, big choices of desserts". Cate said her son would "come home and tell me he had a couple of hot dogs for lunch or he had a hamburger or nuggets". Julie spoke of her daughter's school as providing "greasy pizza", "burgers and chicken nuggets". Karen's son's school served similar items to the other children but moderated the portion size to be "healthy". She found this somewhat hypocritical:

For the most part they are small portions so I am not too concerned about them. The only thing I don't like is that they preach healthy snacks and stuff. They don't want you send any chips to school, but every morning they have egg and cheese McMuffins or sausage and egg and cheese McMuffins every morning or muffins... and that's all they offer so he has that more than I would like him to have.

Participants consistently and clearly defined the healthy school lunch as the “salad bar”. While some children had free access to the salad bar others had to request a salad over the other lunches available. At Tom’s daughter’s school this was a “numbers game”. He explained:

It’s all this numbers game. They make a certain number of plates of salad for the first lunch; kids [get] ‘x’ number. The second lunch kids [get] ‘x’ number. So, if you want a salad today and you are the 57<sup>th</sup> person in line and they had 10 for your lunch there is a good chance you don’t have salad for your lunch.

The only parent who felt her child was receiving a healthy lunch was Kathy. She said, “I think the lunches they give are pretty healthy, lots of vegetables and lower fat foods, really nice stuff”. Alex had less of a concern since:

They’ve lost any – it came about the last 2 or 3 years we’ve eventually stripped them of selling soda, Powerade. So now it has to be nutritional food, water. So they lost that part and I think they’re striving for any meals that are offered by the school to have nutritional value. And I believe candy may have also been eliminated as well.

Although most children had access to healthier choices such as the salad bar, the child chose what they ate. The parents were forced to step back and allow their child to make the choice. For example, Barb said, “They do have ice cream there and we don’t send money in for ice cream. The money he took last week, I guess he told the school counselor that he was going to get some chips and some ice cream”. When Charlie’s daughter was in public school he found, “The kids would go in, and if they were given the freedom to take – buy what they want, they would buy just the snacks. And a couple of times we found out that that’s indeed what was going on”.

Despite the concern by parents over the school lunches, several of the participants felt that schools were increasingly more health conscious. The parents who described

this experience tended to have younger children who attended elementary school. For example Kammie said:

I think they've done a great job in the schools as far as doing the best they can to push – to push healthy lifestyle... Like sometimes at school they'll send home, you know, a chart like the 5 food groups. And this week, write every day the food groups that you [eat]– [my daughter] loves doing that stuff... [S]he'll take it out and, okay, you know, and an orange is one serving – she wants to figure out what – it's sort of just an awareness thing for schools to do. And she will do it. She wants to do it.

Karen described her school's approach to increasing physical activity:

[The school is] very, very health conscious. They have a, you know, health class. They promote walking to school. They have all these like little walk to school week, bike to school week. This is health week so bring your green vegetable. They are very, are always kind of reiterating it, you know, all year long really they have different [themes]. Jump rope for heart and who can jump... and they promote healthy eating. They send home notes saying, you know, this is a new recipe for some healthy granola mix or something and in the school newspaper every week is a healthy recipe. They send home notes, you know, just a generic note with a list of carrot sticks, cheese sticks, what's healthy for snacks in case some of [the parents] didn't know or whatever.

Sharyl, the mother of a middle school boy, noted that:

The school is, you know, they are all sort of becoming more aware of keeping kids healthy I think. Because this obesity is sort of an epidemic now so and that way it helped because as a whole I think schools were trying to make lunches healthier. I know when it first started in his school, they were offering, you know, [the] second helping.

**Summary.** The importance of the contextual conditions cannot be disregarded. The underpinning and interweaving of the micro and macro-conditions provided for a dynamic, fluid, and complex context for the process of making change. The overarching contextual conditions deepen and intensify the complexity as parents set forth on their

goal. They were required to balance their actions within these contextual conditions as the prelude unfolds and evolves.

#### 4.4 Core Concept: Discovery.

All the participants in this study were aware their child was overweight when interviewed. These findings represent a retrospective look at how they came about knowing their child was overweight and what may have contributed to their child's weight gain. Together five sub-categories were identified as attributes to the core category of discovery. They were predisposition, husky build, comparing to others, turning point, and healthcare provider. During the discovery process each of the sub-categories served as a means of increasing parental awareness and, ultimately confirmed that their child was truly overweight. For some parents this was a gradual process, for others, it was a sudden awakening. The interplay among the sub-categories was widely variable for each participant. In certain circumstances these categories overlap attesting to the complexity involved. Figure 4.1 illustrates the sub-categories for the core process of discovery.

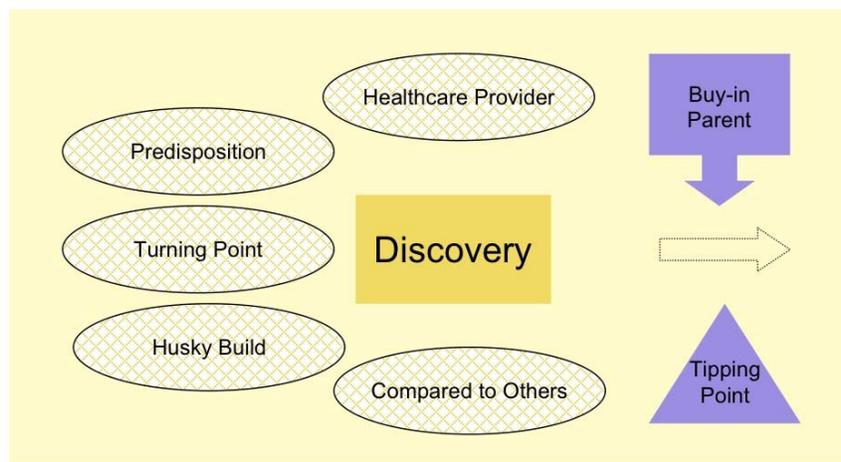


Figure 4.1. Conceptual representation of the sub-categories for the core process concept of Discovery and its linking process concept.

*Predisposition.* Most parents felt strongly there was some type of pre-disposition for their child being overweight or obese. Frequently cited was the role of genetics in both biological and adoptive parents. Biological parents talked about how their children looked like them growing up. For example Kammie said, “I mean both my husband and I were short, pudgy kids. I mean I remember it was like right before I started my period that I like did that stretch out”. For some parents this was reassuring as they grew out of their own overweight body. For other parents there was guilt associated with passing along non-desirable attributes. Sharyl compared her son and husband, “You can see his whole body is like my husband’s”. She spoke of her husband as saying, “Oh, he probably got that from me”.

Family history was cited by several parents as placing their child at risk for weight gain and being overweight. For Kathy, “The whole family has a problem with it”. Sharyl’s husband’s side “tends to have some obesity in it”. Adoptive parents, Peggy, Kylie, and Charlie were more likely than biological parents to attribute a genetic predisposition to being overweight or obese. Adoptive parent, Peggy, felt:

[Her daughter] may be predisposed in that she is going to be a big solid person. Because you can see it physically in her maternal uncles. Her birth mother at 5’11 is the shortest in her family. They are all over six feet.... Well, they’re built like brick shithouses.

Kylie shared a similar view, “All our kids come from families that are very heavy. All of our children are thinner than they would probably be if they were with their birth families. Our younger daughter, her birth mother is probably 300 pounds”. Charlie verified his wife’s thoughts in a separate interview.

She’s very, very similar in that her [biologic] mom was only about that much taller than what [my daughter] is now. And like I said, from the time we knew her, [her biological mother] never was thin.

She fluctuated from being chubby to being fat, or overweight. I don't know how you want to put it.

Serena, the only grandmother interviewed, felt that even under the best circumstances her granddaughter was not going to be thin or of “normal weight”. She described her as “10, 2 when she was born...So she was born a big – she started out her life as a big child.”

This was similar for Sara in that her child “was chunky back then [meaning 4 or 5 years old]” and Kammie described her daughter as “always be[ing] chubby, really since a toddler”.

Collectively, parents identified different attributes that predisposed their child to being overweight or obese. Genetics and family history were the most common factors although not the sole contributors to being overweight. As parents reflected on the reasons for their child's weight problems they sifted through various possible factors that led to this problem thus giving them confirmation to their conclusions.

***Turning point.*** Most parents identified a period of time in which they noticed their child's weight gain. For the majority of parents this was a time of stress within the household or a difficult transition for their child. The age at which this occurred varied widely among participants and could not be attributed to any particular developmental period (i.e. puberty) in the child's life. Only Serena and Kylie felt that puberty “ha[d] made a difference increasing her weight” or had made it more noticeable.

For Tom, Julie, and Anna the transition from one school to another marked a period of stress and weight gain for their child. Julie and Tom described the transition to 6<sup>th</sup> grade as a time that contributed to their daughter's weight gain.

[Our daughters] were in a different school. She went there in what 3rd grade? They switched schools, so then there was the merging of the, you know, the two schools. Then the ones she was friends with

since [then], you know, since pre-school, they weren't necessarily best friends down there [at the new school]. Sixth grade was rough on her down there... in a social way.

Anna identified a similar time for her son.

Well [my son] does have a speech impediment where sometimes he gets talking really, really fast and you can't understand a word he's saying. And he used to get picked on a lot by that, especially when he first went to the middle school. Because all the kids growing up through kindergarten all could understand him or say well, Bill, you just need to repeat that. And when he got to the middle school, not – they mixed in with the rest of the surrounding schools, children – And they didn't know to tell Bill to slow down. So he had to relearn that all on his own because he didn't have that reminder. But – so I think he just – I don't know – decided instead of talking, I'll eat.

For Alex the period of his son's weight gain was less concrete but was in part due to increasing trouble at school and behavioral problems. Alex “[thought] there was some correlation or relation to what's been going on with regards to behavior issues at school [the last one or two years].”

A few parents cited a particular critical event within the household that contributed to their child's weight gain. Sara thought:

It had to do with when [her daughter] was little, my dad was sick and the one thing he could not stand was her crying. That would set him off. That would upset him. I could bawl my eyes out and it had no effect. But if she was crying, forget it. He'd be like stressed out. So we would – if Alice wanted a candy bar, Alice got a candy bar. Because it wasn't worth – we were trying very hard not to stress my father out, so we knew that her being upset, upset him. So therefore, Alice became an extremely spoiled brat. If she wanted something, she got it.

The death of Sharyl's mother was the turning point whereby her son gained a disproportionate amount of weight. Sharyl felt that since she was not available to her son and therefore was neither watching nor aware of what was going on with his weight. She said:

It was the summer my mom died. He gained fourteen pounds that summer. He spent a lot of time not with me. He was with my in-laws because I was at the hospital most of the summer and I, I didn't even see it until the end.

Peggy blamed her health as the source for “bad habits and weight gain”. She found her child taking care of her and “not encouraging her [daughter] to be active because [Peggy] could not do it”. Peggy went on to explain:

A lot of this all happened at the same time when I was able, I got my new knees [from her joint replacement]. ...Because [my daughter] is very caring and has [been] taking care of me for many years because I was unable to get up and down the stairs to do things. She would get my ice packs for my knees and take of, take care of me.

Joyce attributed family turmoil as a significant contributor for her daughter being overweight as seen in the following excerpt.

Joyce (J): [M]y husband was very abusive towards me and the kids. So we left and went to a shelter. [There was] a lot of moving around.

Investigator (I): And that was the time that you noticed [her weight gain]?

J: Mmmm.

I: What are your thoughts on how that contributed to her weight?

J: Um, the same as me. That's how I felt. I'm thinking, she doesn't – all of them don't express how they feel. They hold stuff in. That's why we're in family therapy right now trying to get – you know what I mean? – work on feelings. Because none of us say how we feel. We hide 'em. So trying to talk to her – she's just like I am. She's hurt. She's upset. And she eats the same way I did. All her patterns were just like me.

Many parents cited a distinct period of time in which their child gained weight.

Mark felt that his illness and health issues were the beginning of stress within the house.

For Mark there was a questioning of the impact something like his health could have on his daughter's weight. He said:

I've had some health issues and that's been a pretty serious issue over the last 6 years, so that's been a stressor. And our financial

situation because I've had to – you know, remove myself from the career I was in. I think that's created stress for the whole family, frankly. And I don't know how much of an impact stress can have on something like that, but I assume that it could have some.

Although Kammie, Mark's wife, discussed this as a very stressful time she was unsure of the role this played in her daughter's weight gain but couldn't ignore it either.

I mean I can't discount this. My husband was diagnosed with [cancer] when she was 4 and a half. And so – but you know, she just handled everything really well. I can't discount it but I can't say that I honestly think that she started to turn to food for comfort. Because I've thought about that, like gosh, would her life be different if this stressor hadn't been in her life. And you know, I mean, we weren't – I wasn't home – we weren't home a lot. He was in the hospital a lot and we traveled when he was first diagnosed because he was in this [research] study and so I don't know if that – I mean I can't discount that. Because I can't imagine being 4 or 5 and all of a sudden, your dad's sick and your parents aren't around and you're staying with different people and different people are coming in and you know, everyone's bringing food to the house. So I guess I can't – and because, to be honest with you, I was a little bit preoccupied. I'm sure there was some – there could have been some comfort eating going on there that I didn't even – that I wasn't even aware of.

The historical perspective of parents portrayed a vulnerable period of time for children that contributed to weight gain and served as a source of awareness. The recollection of stress in the house whether gradual, abrupt, or persistent was a turning point that marked a different beginning, the onset of weight gain, and the difficult road to follow for study participants.

***Husky build.*** Throughout data collection parents avoided using the words, overweight, obese, or fat to describe their child despite the awareness their child was overweight or obese. Descriptors such as “husky build”, “chunky monkey”, “man boobs”, “a girl with curves”, “pot belly”, “chunky”, “chubby” “big boned”, “pudgy”, and “love handles” were used as refined or delicate ways parents described their children.

The shape of the child served as a marker for the child's weight status for the majority of parents. For example, Barb said:

We were out on the bike path and I looked over and he looked almost like he had a lump on his side. And I'm like, what the heck's that – and realized it was love handles or whatever – stupid name. So that's sort of where I was kind of aware of it, but well, is it baby fat?

For Karen, her son's "husky build" made her believe that he could have the "body stature that would put on weight easily". Similarly to Barb, Karen's son's body shape presented more of a questioning as if this actually could or would happen. She said, "He's really not fat. He is husky built, but he has the kind of protruding belly stance". Kammie felt similarly about her daughter:

[My daughter is] by no means obese. She's just – she carries this abdominal girth. She's got nice fit legs and she just always carries her weight right here [pointed to her belly] and it's just – it's just been – hasn't gotten like profoundly huge. It's not like, oh, my God, Maggie's like blown up. It's just been, as she's gotten bigger, she just hasn't had that like stretch out, lean down that we keep thinking is going to happen.

Sara described an incident while making clothing as providing an indicator of her child's body shape. Sara described this in the following excerpt:

She was five [and] the dress that I made her was a size 10. And I was just like – of course, I had to alter it because it was too long. So I had to shorten it. But it was one of those, as I'm making this dress, going, no, you should not be this big. And then I thought, well, some of the other kids in her class were big, too. So I was like, okay, well, maybe it's not just me. You know. Or maybe it is just me. Maybe it's, you know – maybe the kids are big now.

Clothes shopping provided the awareness in which Julie realized her daughter had a weight problem.

I mean, you could see it physically. I mean, when we went shopping she was in, we were going to husky or plus sizes. The,

you know, the plus size as opposed to the regular size which we were able to do before.

Despite the polite circumlocutions attributed to the child's overweight body shape no parent either identified or labeled his/her child as fat, overweight, or obese based solely on body habitus. The body shape served as an indicator but created more of a questioning stance for most parents. It presented a heightened awareness to the possibility their child was overweight or obese.

Joyce and Kylie provided contrary cases. Joyce described her daughter as "always [having] been thin, slender" and it was her shape that identified her daughter as having a weight problem. Joyce watched her daughter just "get bigger and bigger". For Kylie her daughter's body shape led her to the belief her daughter was overweight.

She looked chunky. To me, she looked heavy. And I knew what she'd looked like all along. You know, like she'd been very chubby when she was placed with us as a 16-month-old. But then over the years, she had been perfectly proportioned. And then all of a sudden, she just looked really heavy.

For these two parents, the body shape served as the predominant indicator of their child's weight status.

*Comparing to others.* Many parents used comparison during the discovery process. Parents compared their children to the child's earlier years, siblings, peers, and themselves as they questioned the child's weight, searched for explanations as to why their child was overweight, or sought corroboration to whether or not their child was overweight or obese.

Several parents pointed out that their children were "skinny little kids", "use to be thin", or "had always been thin". The investigator discovered implicit meanings while listening to these participants. They conveyed a sense of wonder as to how and why their

child was the one who gained weight. What followed was an ongoing comparative process between their overweight child and the child's siblings and/or the child's peers. For example, Sara questioned if "maybe kids are bigger these days?". Frequently parents compared one sibling's metabolism with that of the overweight child. Anna described her twin son's metabolism, "[H]is brother can eat anything he wants and he's got such a high metabolism, just like pshoo, pshoo - it's like a - I don't know- a wild animal". Tom described his normal weight daughter as able to "eat whatever she feels like eating". He went on to say that "you don't necessarily know that she eats whatever she feel like eating because she has a good metabolism".

Parents compared body shapes of siblings. For the majority of the parents this emphasized the possibility of their child being overweight. Anna described her son as "chunky around the middle and his twin brother is really thin. So it defines it more". Sara referred to her younger child as "skinny Minnie" and "having the polar opposite children". Mark and Kammie both noted, in separate interviews, their younger daughter was thin and noticeably different than their overweight child. In contrast to this, Alex and Barb considered their other son too skinny, "you can see his ribs". Alex felt his "skinny" son needed to gain weight as compared to his overweight son. This was true for Karen. She "worries her [other] son has the opposite problem. He is underweight and under - he is small for his age". Here the body shape of her overweight child served to call parental attentions to the other son's thinness and to a lesser extent the overweight status of her child. Notably, these parents were clinically obese.

Parents with a single child used other comparative strategies. In the social setting Sharyl compared her son's eating habits to that of his friends.

Kolby will have two pieces [of pizza] tops. I mean the amount, it seems like the amount of food he eats is so much less and his, his activities is about the same, you know, I try to compare with other boys his age and, but yet...he's still overweight so what, you know, is it really genetics, you know, is there really nothing we can do?

Cate shared similar thoughts, "He has a lot of friends who are just, you know, 14 and skinny as a rail and they eat anything they want".

The sub-category of comparing to others served a multitude of roles for parents. For some it heightened the awareness their child was overweight. Yet for others it was more an act of exploration, questioning, and/or searching that was integral to the process of discovery. Importantly, the investigator identified a palpable frustration and a sense of parental burden within this sub-category from which parental worry evolved.

***Healthcare provider.*** The role of the healthcare provider (HCP) played a pivotal role in the discovery process for most parents. For several parents the healthcare provider confirmed the child as overweight or obese for the parents. Kathy identified her child as being overweight merely from her HCP telling her so "because I trust her, and I trust her opinions". This was a terminating event and signaled the final event in the discovery process for many participants.

Parents described several ways in which their HCP discussed the weight of their child. The approach used by the HCP and the reaction by parents was worked out in various ways. For example Kylie valued the directness of her HCP as validating what she already knew. She described her encounter:

I have to say this is the first year I was kind of impressed that the doctor's office was so blunt about it. You know, certainly I've had concerns before and they haven't kind of supported me when I've said, well, what do you think; we have a genetic tendency. So this is the first year that the physician's assistant was really like, okay, red alert. This is important...Oh, my God. I love it. I always want other

people to say it because I feel like, who really hears me after I say it 7 million times.

In contrast both Sharyl and Julie described different experiences with the HCP's approach. They viewed the HCP as accusatory and that of casting blame. Sharyl described her interaction at her child's office visit.

He was actually very mean. Well I felt like he was mean. Mean to me because he immediately....it seemed like he, you know, looked at me as a mom and said you need to stop giving him junk food and he needs to be more active and I'm like wait a minute, wait a minute, you know....I feel like I'm doing all these things and so that was hard.... He pretty much only said, you know, he can't gain any more weight so that he can grow taller and grow out of it.

Joyce shared a similar experience with her daughter's HCP.

Joyce (J): She said in front of my daughter – her exact words – You are very obese. You are very obese. And then she pulled out the chart. They had the height and the weight and all that, and told Nina she was very obese. Very fat and needed to lose a tremendous amount of weight. And I was like, wow. And then I told Nina to leave the room and I said something to her.

Investigator: So what did you say?

J: Not so nice because I was very upset because Nina got very upset and started to cry. She was nasty with it. She was really nasty.

Although Joyce and Sharyl referred to the interaction as unhelpful or accusatory, it significantly impacted their future actions in addressing their child's weight. Following their respective office appointments, both Joyce and Sharyl found new HCPs for their children.

Other HCPs were less explicit. In these instances the HCP was less likely to use words such as overweight or obese. Their child was described as “heavier than according to what they should be”, “not where they should be”, or needing to “grow into it [his or her weight]”. Anna described her son's physical.

I believe it was a physical and they did the growth chart that they do. And they go over it with myself and Bill, and they did the same thing with Bob [twin sibling] and myself. And there was a big difference, because the boys – they talk back and forth. And so they just said, this is where you should be and you should eat more vegetables and get more exercise and no soda or cut down on the soda.

For Serena, the fact that the HCP did not mention the weight of her granddaughter created wonder and frustration. She found you had “15 minutes to state your case” and her granddaughter’s weight wasn’t even addressed. “She couldn’t believe it.”

Regardless of the approach used by the HCP, participants found that this was a time that either identified or verified their child as overweight. For many parents this was of great consequence in the discovery process and it placed them in a position of having to make changes and address their child’s weight and health.

***Parental buy-in & the tipping point: Linking process concept.*** Participant awareness was drawn from all the sub-categories within the discovery process. Awareness that their child was overweight varied from gradual understanding to immediate recognition for parents. This process was far from linear. There was resurfacing evidence identifying the child as overweight thereby increasing parental awareness. It was a reiterative process whereby parents may not have initially been accepting of this truth. Through input and social interaction parents came to realize their child was overweight. There was a *tipping point* that occurred for participants when they moved from disbelief or questioning to acceptance that their child was truly overweight. Barb described this time for her.

This past fall, actually, [my son] went in for a follow-up appointment with his pediatrician. And he said, you know, I’m really concerned about how much – how much weight he’s gained. And he said, let’s just go weigh him for the fun of it. And I can’t

remember – it was a significant increase from only a few months ago. I’m trying to think. So he would have had his well child check when he was 8. So – well, it would have been like a year ago. And I can’t remember – I can’t remember what the weight difference was, but it was quite remarkable. It was like, oh, my God. And so that’s where it kind of really hit me then. All right, it’s bad enough that we need to [address it].

For Sara the tipping point was when she realized how much her daughter weighed. “ A 12 year old shouldn’t weigh 290 pounds. That’s just-when my mom told me that my jaw hit the floor”.

The tipping point for Joyce and Mark was less pronounced. Joyce kept watching her daughter “getting too big” within the context of her daughter “having a diabetic neck” while Mark didn’t find any signs of his daughter’s weight “letting up” or “plateau-ing”. For the participants these events did not occur in isolation. Ongoing and heightened awareness created, shaped, and completed the discovery process and created a parental buy-in. It was the cumulative experiences and formal integration of the discovery sub-categories predisposition, turning point, comparing to others, and the HCP that, when combined, reached a pivotal personal level and ultimately demanded attention and action.

#### **4.5 Core Concept: Taking the Lead.**

Taking the lead was identified by the investigator as a necessary pre-condition to the basic social process of making change. Although this process appears to be straightforward and linear it was not. The characteristics of taking the lead were heavily influenced by contextual conditions under any given circumstance. Two sub-categories emerged from the data within the core process concept of taking the lead. They were mom’s the boss and parental angst. These concepts directly affected the parent’s ability

to take the lead and promote health for their child. Figure 4.2 is a graphical representation of taking the lead, its sub- categories, and its core process linking concept.

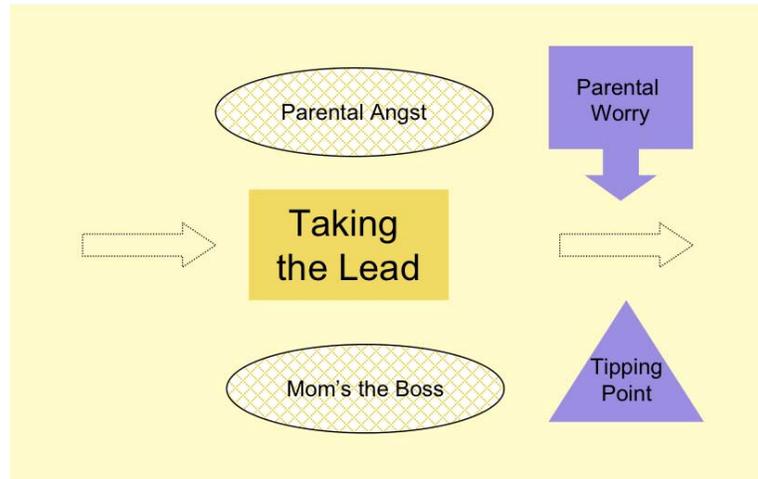


Figure 4.2. Conceptual representation of the sub-categories for the core process concept of Taking the Lead and its linking process concept.

**Mom's the boss.** The investigator discovered the heavy influence of sociocultural norms and values on the identification of the lead parent. Mothers, without exception, were identified as the lead parent regardless of marital or partner status. Mothers were the “go to parent” for both the child and the father. Serena described this as having the role of “the rock”. Embedded within the lead parent was the expectation that mothers were to take the lead. Peggy referred to this as the “go to parent”. Kammie said about her husband:

He'll say to me, I'm concerned about Maggie's weight and we'll have a discussion about it and sometimes I get mad. I'm like, okay, well then what do you think we should do about it.... And I think initially he would sort of present it to me like it was my issue and I was supposed to do something about it.

Charlie confirmed this in his interview. He said, “I mean and I feel bad because it’s kind of like I pushed it on Kylie to be the – more of the enforcer”.

Mothers in the study described being obligated to fill the role of lead parent. They raised concerns of having to watch and monitor their child since the father would not to the extent they felt necessary. For example, Barb felt she was making “[her] husband out as an ogre, but he doesn’t enforce that [my son’s] got to come to the table to eat because he is just as bad”. This was in part attributed to her husband’s unawareness of the weight as a problem for their child. Barb said “You know, I think the only reason he sees it as a problem is because I see it as a problem. I don’t think that – I don’t know if he really sees it himself as a problem.” Her husband, Alex, when interviewed separately, felt that he and his wife “had different values as to what is important” but also supported his wife. Fathers concurred that the lead came from their wives. Mark said, “My wife wears the pants around here” and Charlie described his wife as “the enforcer”.

The nature of being a single mother placed these mothers as the default parent who takes the lead for making change and promoting health. Single mother, Cate, felt that she had to take the lead and educate her ex-husband. For example, Cate said, “I’ve spoken to his dad and said look, you know, if you’re going to give him soda do what I do and then buy them singly and do the diet soda.” In contrast, Peggy did not engage her ex-husband. She felt “those are small battles that I choose to deal with by educating Meghan in her healthy choices.”

There were two instances described by mothers of a father and a mother’s partner attempting to take the lead. For Sara, her partner would give her daughter less food than she would serve her. Anna’s husband limited soda and pre-meal snacks. The input and

moderation was inconsistent and limited and ultimately resorted back to the mother as Anna described, “he doesn’t practice what he preaches” and “the kids see that” thereby minimizing his authority. Anna went on to say “dad knows mom is the boss”.

***Parental angst.*** The discovery by parents of finding their child overweight created a significant amount of blame, sadness, and guilt. Both mothers and fathers described feelings of sadness, guilt, blame, and embarrassment that their child had become overweight. Barb found it “embarrassing. It’s embarrassing that we’re at that point”. Alex said “[It] makes me feel, I guess, sometimes that maybe I’m letting him down”. Compounding their internalization of such feelings was sadness their child had to deal with the stigma and complexity of being overweight.

Parents described non-verbal cues from their children with regard to their discomfort with their bodies that only served to deepen their angst. Parents reported their children would attempt to hide their bodies from others. Tom referred to this as the turtle effect. The turtle effect was the physical act of shrinking into one’s self out of embarrassment. The investigator broadened the *in vivo* code of turtle effect to include the act of the child hiding his or her body out of embarrassment. Parents who witnessed this act by the child found it created and heightened internal turmoil. The phenomena of the turtle effect served as a pre-condition to taking the lead and an integral attribute to parental angst.

The turtle effect magnified parental angst by making parents feel badly for their child. Parents were keenly aware of their child’s concern and dislike of their body shape. Mark and Kammie felt badly for their daughter that she wasn’t happy with the way she

looked. It was this sadness that encouraged Mark to encourage his daughter. Mark described his feelings.

I just feel – I know she doesn't like how she looks. She's very self-conscious of her appearance. And it just breaks my heart. You know and I do what I can to re-encourage her and reinforce all of the positive aspects and how healthy and athletic and strong she is. But she sees in the mirror what she sees in the mirror. And you know, her mind is convinced by what her eyes see.

Kammie felt that somehow being overweight detracted from her daughter's ability to feel fulfilled. Similar to Mark it was her daughter's dislike of her body shape that made Kammie upset. She said, "I get bummed. I feel bad for her sometimes because she's – like I said, she's this great girl, she's got great spirit, she's fun and athletic and I just – it kills you when you see".

Parents described social situations that involved increased body shape exposure as a time when children were more likely to portray the turtle effect. The swimming pool was a common setting. For example, Kammie described the onset of swim season and its effect on her daughter. She said, "There's always this awkwardness where she – she'll wear – the last two seasons I've noticed she'll walk to the poolside with her towel in hand, drop the towel right before she goes in or something like that". Karen shared a similar experience with her son.

At a public pool like when there is more girls around or people like that around, he will put his shirt on quicker definitely and be more self conscious at that point when there is more public people around versus his friends or his family or whatever.

Barb's son had an incident at the swimming hole and after that chose not to swim or to change clothes in front of others. She explained:

We had gone camping with some relatives and I guess – I'd heard about it after from my older kids that my nephew, who is 22 or 23,

was making comments about Aaron – whoa, he’s really grown. You know, he’d taken his shirt off to go swimming and made some comments. And it was to the point – I don’t know if that was why or if there was something else going on for Aaron, but we had a hard time getting him to go swimming again.

Parents of girls described their children as wearing big baggy clothing in an effort to hide their bodies. Kammie spoke of a conversation with her daughter:

She told me, you know that I don’t like to show my body and I feel more comfortable in sweatshirts. And then I – I mean it can’t even be a sweater. It’s not even a sweater. It’s like, I don’t know what it is about the baggy – you know, sort of bulky sweatshirt where she feels more comfortable.

Julie said:

We went into the store the other night and [my daughter] went to the men’s area and she gets, she ended up getting a sweatshirt. She wears sweatshirts a lot or she wears shirts, extra extra large shirts instead of... My thing is, she should wear something, obviously we want to cover ourselves, but something that is more fitting.

Blame and guilt were a source of parental angst. For example, Joyce blamed herself for her daughter’s weight problem:

I blame myself for stuff that’s happened. Because if I – long story but I’m not going to get into it. If I would have left, took my kids and left the situation I was in instead of staying all those years [with her abusive husband], my kids would be okay today.

Other parents described feeling like a “bad mother” or “like crap” that their child was overweight and had to deal with the ramifications of what this meant. Blame held a different dimension for Sharyl. She blamed her sister-in-law for her child’s weight gain during a stressful time.

I always felt like I was doing a good job with that....um... I, actually I put blame on my sister-in-law because she was going through, I hate to put blame on anybody, but she was going through a tough time that summer. [My son], you know, he didn’t, he wasn’t active at all. She wouldn’t go out of the house, but I had no place

else for him to go. He pretty much ate whatever he wanted and when he wanted and I think it just caught up with him.

The internal angst this created in parents created the impetus for them to take the lead, to help their child, and to promote their child's health. This sub-category laid the framework for the linking process concept of parental worry that provided a strong motivating force for making change.

*Parental worry & the tipping point: Linking process concept.* The evolution of the discovery process combined with parental angst created a sense of parental worry for the affected child. Parents worried about their child's current and future physical health and self-esteem.

*Physical health.* There were two discrete aspects of physical health found in this study, current physical health and future physical health. Parents were less concerned about their child's current health status and considered their child healthy despite being overweight or obese. Karen and Anna felt their children were very physically active making them worry less about their child's health. Karen felt "he exercises and he is an outdoors kid and he plays sports all year round". The lack of current concern for Anna made her less likely to worry and make changes. She said, "I mean he's not that much overweight in my eyes, for his height and his age and everything. And I see that he's active and so it doesn't really worry me". Anna went on to say, "I don't see his weight as a problem right now simply because he can keep up with everybody else and he can outwork everybody else". Children who were less likely to be physically active and/or were unable to keep up with others posed a greater degree of parental worry for their child's current physical health. Tom described his daughter as "huffing and puffing" and wanting her to be able to participate without being winded. Julie, his wife, added:

To me that is not healthy and I'm not saying that I want to see her weigh 90 pounds. That's not to me, look at me, I'm not skinny by any means. But I just want her to be where she can do more and more activities and be able to breathe as she should be able to breathe.

Barb described a similar concerning incident for her that made her question her son's current health. She said:

We've got lots of stairs. And I'd asked him to run to the car to get something for me. And he came up and he was all out of breath. Again, asthma? Weight? I don't know. But it bothered me that here is this young kid and he was so out of breath.

The activity level of the child and the ability to keep up provided an indirect measure of health and "being healthy" as perceived by the parent. Although these parents were clearly less worried than other parents that witnessed symptoms of health related concerns they agreed that if the activity level were to drop off it would create greater worry. Mark was an exception, for him his daughter's level of activity presented a greater degree of worry. He said, "It makes me worry more. Because I don't know if she's going to continue athletics at that level or that regularity in the next 10 years". Meaning, he feared that if his daughter could not sustain such a high level of activity her weight would be an even greater problem.

Three children in this study were being treated and/or followed for obesity related disease. This identification of a current health problem by a HCP re-enforced and heightened the parental worry for their child's current and future health. Joyce described this incident.

Joyce (J): She's got the rash on the back of her neck, on her armpits. I took her to the doctor's because I didn't know what the heck it was, all of a sudden. And they were like, it's a pre-diabetic neck. It was a big, long word which they tested her and her sugars were a little high. They're watching them now. And Doctor Chang

said mostly likely she's going to have diabetes. She's already got the rash on the neck and her sugars are already high. So now they're watching her sugars.

Investigator: So that's a worry?

J: Yeah, diabetes, yup.

Kylie shared similar thoughts and although her daughter did not have diabetes, the threat was imminent for her. She said, "I had to take her down and get her tested. She came back negative. But in my mind, you're just dodging a bullet. It's just a matter of time if you don't change your ways". Sara, whose daughter was receiving treatment for high cholesterol, felt her daughter was unhealthy simply because "a 12 year old shouldn't weigh 290 pounds". For these parents the threat to their child was real and verifiable.

The concern over the future health of their child held the greatest amount of parental worry regardless of the current perceived health status. Each parent was aware of the ramifications of long term overweight and obesity based on personal experiences, the health problems of family members, and/or the media. A family history of heart problems or diabetes or hearing troubling stories created a heightened level of worry for the future health of their child. For example Julie said, "What we were talking about was that my grandmother has diabetes, [my husband's] dad has diabetes, it runs on both sides of [my daughter's] family and that we were more worried about [my daughter's] health". Similarly, if it were not for her husband's family history Barb felt she would not worry as much about her son. She said:

I think knowing what [obesity] can do and seeing that happen but also knowing my husband's family history of weight issues and my mother-in-law had a stroke and has diabetes and now has cancer, knowing all that stuff and realizing other people that have been overweight have developed diabetes, just knowing – I think probably for me, it's probably more knowing what the family history is. If I didn't have that and thought of my family, I don't

think I would worry about [my son's health] as much because my family has been so healthy.

Cate and Sharyl worked in the health care setting and saw firsthand the health problems related to overweight and obesity. Cate described her concerns:

I work with the Health and Diabetes Center so I see [it]. So I know in my mind that oh, my gosh, and you hear on TV...you know how obese kids are now and I'd much rather not have to deal with that. Life's hard enough. And, and the complications from that are so big.

Kathy's decision to make change was based on her worry from watching television and her family history. She said, "I'd watch the TV shows about all these really fat little children and how their lives are affected and all that. And my father was 400 pounds. So I don't want her to be [that way]".

*Self-esteem.* Parental worry over their child's self esteem was of greater immediate concern for participants. Cate did not want her son's image of himself to be that of one who is "porky and fat". Many parents worried their child had low self-esteem, viewed his or herself negatively, or was stigmatized in part, if not directly, related to his or her weight. Sharyl was worried about "Kolby being liked by his peers and not being outcasted". Charlie "didn't want it to become a problem, where she's either – people are noticing and commenting to her or where she feels self-conscious, almost embarrassed [by her weight]".

The parental worry for self-esteem was exacerbated by incidents of name-calling and stigmatization by others. Parents identified their children as getting picked on based on their body shape. Incidents of being "called fat" and "made fun of" created concern and worry for their child's well being. School was a common place where children were harassed. Sara described this in the following excerpt:

We moved out here [to the suburbs] and I'm not sure which school district was worse as far as the kids making fun of her. You know, I sort of knew coming out here she might have a little more issue because in the [city] school she was in, in her class alone, there was I think three other kids that were big. So she at least had that. From what I can see, the kids in her [new] class were like pipsqueaks compared to her.

Tom, Julie, and Joyce described similar incidences whereby their daughters were harassed or made fun of by others. In each instance the parents were not directly informed by the child but by the child's sister or counselor, respectively.

The degree of parental worry created movement toward making change. There was a tipping point for parents similar to that found in the discovery process. It was apparent during data collection that parents who demonstrated a greater degree of parental worry were more driven to making change and promoting health for their child. As the worry for the child's health and well being increased it "tipped" parents in the process of making change. For example, Joyce was aware of her daughter being overweight as she described her daughter getting "bigger and bigger". This alone did not provide the impetus to make change for her daughter. It was the entirety of her health issues and "almost dying" from her weight, the name calling "you fat beatch" her daughter endured, her daughters low self esteem and dislike for her self ("I'm ugly. I'm fat") that tipped the balance toward action for Joyce. It was the collective of the sub-categories, parental angst and mom's the boss, united with parental worry that created the thrust for making change by taking the lead toward health.

The investigator identified this process of taking the lead as a pre-condition to making change. Taking the lead was a necessary antecedent for making change. There

was a synchronicity that occurred early in the making change process. Parents quickly moved from discovery to taking the lead that subsequently merged into making change.

#### 4.6 The Basic Social Process: Making Change.

The concept of making change permeated and was central to the social processes or action throughout data collection and analysis. It strengthened, solidified, and provided explanatory power to the main question of “What is going on here?” (Strauss & Corbin, 1998). Based upon these criteria, making change emerged and was identified as the basic social process. Making change served as the groundwork for substantive theory generation and development.

Within the BSP of making change the investigator identified several strategies that parents utilized to promote the health of their overweight or obese child and the many barriers they faced during this process. A conceptual representation of making change is represented in Figure 4.3.

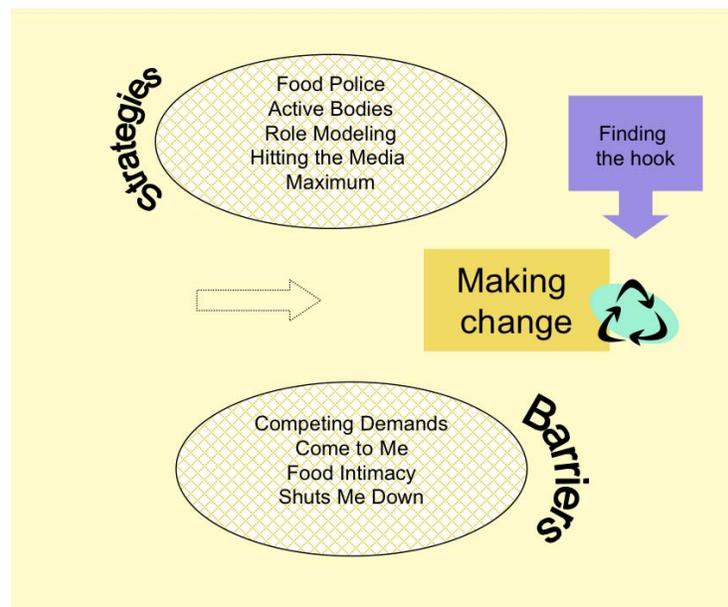


Figure 4.3. Conceptual representation of the sub-categories for the core process concept of Making Change and its linking process concept.

*Strategies.* The main process by the lead parent was making change. Weight concern and worry forced parents into a decision making process of what to do. Parents examined what they and their child were currently doing with regard to diet, exercise, and to a lesser extent screen time. Making change occurred based upon this evaluation. The evaluative process was integral to moving forward to create change. Parents use multiple action strategies to implement changes toward healthier patterns. The strategies a parent used were contextually driven and contingent upon the response of the child.

*Food police.* The subcategory of the food police was identified early on by the investigator. Parents portrayed the food police as a militaristic strictness or extreme restriction of food and food intake by the parent for the child. Parents struggled with having to do this for their child. Cate tried “not to be the food police” unless her child’s health was at risk. She said, “I would really hate it, but I would... pretty much....you know, play food police and, you know, lock things away”. This was similar to Mark who found watch[ing] how [his daughter] eats and what she eats and the quantity – I watch these more closely than I do with the other two [children]. It’s kind of stressful because I don’t want to be the police, you know”. Other parents, Sara and Anna, considered using a “lock box” or “locking up the food”. For the summer months, Sara had her daughter stay at the grandmother’s house so that “gramma could be the food police”.

Upon deeper analysis the investigator discovered parents were indeed playing the role of the food police. By exploring the definition and function of the police one can identify characteristics of a guardian who educates, monitors, and serves as a role model. The police provide boundaries, help prevent problems, or serve to correct problems. The police serve for the good of the public. Using this broader definition each parent was

actively participating in this multi-faceted role of the food police for the good of their child. The extreme to which parents engaged in this action varied widely among participants. Serena engaged very little in the food police. For example, Serena said:

I always have good food in the house. I always have fruit. I always have vegetables. I always eat good vegetables myself. And I always encourage her to drink water all day. But [my grand-daughter] tends to like the typical teenager food of pizza, mac and cheese is one of her favorites, chicken wings, fried food. That's what she tends to eat. And I always have good food but then she says I don't like that, I don't want to eat that. And ends up eating what she wants to eat.

Similarly, Anna "let's them eat what they want to eat". However, Anna changed the type of foods available by buying healthier foods such as fresh fruit and vegetables, and "less snacks like junk food". On the opposite spectrum Mark felt he "monitored everything" and Sharyl "moderated everything".

The majority of parents were watchful of their child's food choices and food behaviors. Despite this, fathers were less likely than mothers to truly moderate their child's intake and choices. For example, Mark and Charlie watched their child's intake but were "less likely to act on it". Cate and Karen negotiated with their sons with regard to food portions. Karen said, "Whether I give it to him or not I tell him whether it is healthy or not ... and when he asks for seconds we talk about, okay, maybe half of that without the roll". For Cate, she would say, "Try one scoop [of ice cream] and see if you are still hungry".

Moderation of food and food choice was not limited to verbal interaction. In social situations parents would gesture or hint based upon their appraisal of the situation. Cate would "give the nod to Ned that well, that's probably enough of that". Peggy might

say, “Hmmm, aren’t we hungry today?”. This was not limited to disapproval, for example Sharyl described the following:

The other night [my son] did it all on his own so I was like okay I’m not going to say anything cause [dinner] came with fries and it did come from him. He said can I have the broccoli instead of the fries? I was just like, oh... so then I high fived him, I’m like, congratulations, you know. And then he just laughed, you know, and high fived me back, yeah.

Other non-verbal strategies parents used were portioning out food for their child.

Kammie “fixed everyone’s plate and then put it on the table because it was just –[my daughter] would just keep taking more and more”. When Cate’s son asked for seconds she “put the portions on his plate”.

Parents used techniques such as negotiating with their child, encouraging healthier foods, moderating or monitoring their child’s food and food intake, and/or avoiding what Sharyl called “crap in the house”. Kylie referred to this as “the gatekeepers of food”. Instances that limited access to “junk” or non-nutritious foods were common strategies for parents. Peggy avoided eating out. She said:

We don’t eat out and don’t do fast food if we can help it. And if we do fast food we will try and do a salad or something that is going to be more appropriate and better for us.

Kammie tended:

To try to not put us – you know, like not put us in situations where there’s going to be a lot of food issues – like I’m just trying to think, like if we – if we’re going to go out to dinner, I might like make a choice that would be healthier, it might be more fun to take – to go and have pizza, but we might make a choice to go and do something different because it’s a little bit healthier.

Tom described a time “like when we got rid of all the candy and had all fruits and vegetables”.

Education with regard to what is healthy or making healthier choices for their children was limited to mothers. Parents used terms such as “making a good choice”, “this is healthier”, and trying to “educate” their child about what is healthy. For example

Kylie:

Talked a lot about portion sizes and I just bring out the measuring cup. And I have the kids turn the package around and look at it. And I say, okay, what’s the portion size. And of course, it’s always a shock. So I have them measure out their own food when I can, and that’s helpful.

Sharyl provided an example of how she educated her son.

When he’s trying to choose something for lunch I try to keep him away from high fat stuff and high sugar stuff...um... so I’ll say pretend you have to choose between a piece of cheese pizza or you know, something a little bit more healthy. I can’t think of anything right now, but you know, what would you choose and why so I kind of give him a scenario and then I teach him that way.

Kammie presented her daughter with the decision about making a choice while providing guidance:

I’ll just say, make a good choice. You know, we’re going to eat [dinner]. I don’t think you should [have a snack]. And then sometimes she’ll say, can I just have one? or she’ll get mad or – it varies. It really varies, especially now that she’s sort of pre-pubescent, a little hormonal. She’ll – it’s all over the board. Sometimes she’ll get mad and she’ll stomp off. Sometimes she’ll say, you’re right. How much longer until dinner? – or negotiate – Can I have one pretzel?

Barb provided “try it” sizes of different nutritious foods to encourage variety and acceptance of healthy foods that taste good.

Mothers tried to teach their children how to recognize satiety. For example Sara said:

[My daughter] eats almost as much as a full-grown man, sometimes more. But the fact that I can’t get her to eat less because I’ve tried

explaining to her, if you eat less, your stomach will shrink. When your stomach shrinks, you'll stop being hungry all the time. Just you have to give it time. It's not going to be instantly – an hour after you stop eating something, oh, I'm not going to be hungry. I tell her it's going to take time.

Kylie explained:

I would say that it's made a difference in the sense that I've said, you need to stop and listen to your stomach and decide, are you hungry? And I think that has made somewhat of a difference in that they're conscious [of that].

Kammie asked her daughter to:

Think about, are you hungry, are you? When you're eating dinner, step back from your plate and digest a little bit. Because like I said, she tends to just keep going, keep going, doesn't let her brain connect with her stomach. And so we talk about that.

Food from home was a strategy that several parents used to create healthier meals for their children. Parents who felt their children were eating poorly at school would pack lunches and snacks for their children to bring with them. For example, Cate had her son help pack his lunch with things he will eat. She:

Sends him with a water or seltzer water. He doesn't care for like the nutigrain bars or things like that. I do like the 100 calorie packs [of] either a sweet thing or crackers, maybe a sandwich or nibbly kinds of good things.

Julie said, "We'll put together lunch, whether it's a sandwich or vegetables or fruit. You know, whatever it is, salad or whatever" while at the same time adding her daughter has to make the choice to eat it though. By doing this parents decreased their child's access to less healthy foods and enhanced consumption of healthier alternatives.

Although each participant used multiple action strategies found within the food police they varied in many ways and along several dimensions. Implicit within this process was the need for the parents to help and guide their child to make healthier

choices and to develop healthier eating behaviors toward food. A working relationship which was co-dependent on the parent-child dyad was evident in this study.

*Active bodies.* Keeping their child active was of great importance to parents in general and fathers in particular. Parents discussed several action strategies to get their child active such as “doing [physical activities] with them”, “persisting” they try out for sports, “encouraging sports”, “choose what they like”, providing “wide exposure” to a variety of physical activities, and “asking them to help with chores”.

Encouraging their child to be active or keeping them active was easier for parents whose children played team sports or enjoyed being active. Karen, Peggy, and Sharyl felt their children were “active year round with sports” with soccer, football, hockey, and/or horse back riding. Mark and Kammie thought their child was “incredibly active” by choice with soccer and swimming. Although team sports provided a means to physical activity for some of the participant’s children it created a barrier for others. Parents whose children didn’t make the team or “weren’t played” found this created more problems than lack of physical activity. For example, Cate felt her son “got turned off to the sport” since the “coach wouldn’t play him”. Serena found her granddaughter’s self esteem suffered when she didn’t make the team. She described this in the following excerpt:

[My grand-daughter] kind of had a blow to her ego when she didn’t make the lacrosse team. And she was motivating herself. She was working on her diet and working on everything to make the lacrosse team. But then she didn’t make the lacrosse team at school. So that was a huge let down to her.

Serena met further resistance when she was informed there “was no room on the [basketball] team” for her granddaughter. Tom and Julie felt their daughter’s fear of

failing prevented her from participating in team sports. Tom said, “Part of it was the fact that you could tell, I guess the easiest way to say, you could tell she was afraid she wasn’t going to make it. So instead of failing, [she] just won’t do it”.

For parents whose children were not involved in team sports getting them and keeping them active required a different approach usually involving parental participation. Kylie and Charlie joined the local community club. Kylie said:

I’ve always brought the kids to the club ever since they were really young. And as soon as they were placed with me, I already went to the Y so they went with me. So we probably always averaged at least an hour of hard exercise, 5 to 7 days a week. You know, I’d go and work out but the kids go to the kids’ area and they’re running around.

Similarly, Joyce and Cate went to the community center or gym and exercised with their child, respectively. The approach of parents being active with their child was more likely to make their child physically active as well as themselves.

Being outside was identified by several parents as a means to getting their child active through biking riding, hiking, hunting, and swimming. For example, Barb and her son “take walks together”. Kathy’s daughter “played outside all the time and [went for] lots of walks in the woods”. Anna’s son would ride his bike with his brother. Kylie would have her daughter “go outside and play, ride your bike”. Mark thought his daughter was “more active when she was outside”.

Parents of children who simply were not interested in being physically active tried getting their child to “at least move” or “do something”. Sara, who presented the extreme case, found getting her child active difficult, as her daughter plainly did not want to be active. She said:

She's very smart. She's very stubborn. When she gets something set in her head, there's just – forget it. There's no changing her mind. There's no convincing her of anything else. So she's very stubborn and you know, if she's made up her mind that well, I'm not going to do anything today except sit on the couch and watch TV, then it's – it would take a holy act of Congress to get her up off that couch.

For Sara this was:

Kind of aggravating because I try different things to get her to do things because – you know, she could eat some of the same foods, just less of them, as long as she got up and moved, she wouldn't be as bad as she is. It's just getting her up and doing something.

Tom and Julie's daughter was no longer active in sports. Julie said:

She doesn't do that anymore because she doesn't want to do the running. I mean, she pretty much came out and said, she didn't want to do the running. She didn't want to run from one end of the field to the other. She didn't want to run the court. When she got to Lancaster she didn't want to do the tryouts.

For them they tried to find ways to “get her off the couch” a different degree of physical activity.

Making the connection between activity and health was a strategy for making change. Children who were able to understand or “to make the connection” between physical activity, health, weight, and healthier habits helped to promote physical activity. Cate described how “gym was a battle because he just wasn't interested, I think. All of it wasn't explained. It was just go run around for 35 or 45 minutes”. She felt the gym teacher helped him make the connection. Cate said:

I think that, that it makes sense to him. He is a very common sense kind of kid like if you tell him something that makes no sense then he's not going to do it. But if you explain to him different parts of [exercise and using your muscles], that, you know, why your blood pressure is up because your weight is up and because you're not exercising. You know, get your heart rate up and lose weight and he understands that. Instead of just saying, go run around for forty-five minutes.

Kammie felt her daughter wanted to be “drenched with sweat” at basketball practice because “she just knows that I always say, you’ve got to move your body. You’ve got to move your body. The more you move your body, the healthier your body is”. She made the connection between sweating hard and healthy bodies. The ability for parents to get their child active or “keep their body moving” was clearly dependent on the likes and dislikes of the child and their child’s willingness to participate.

*Role modeling.* Parents in this study felt it was important to act as a role model for their children in promoting healthy habits. Sharyl said, “I try to be, you know, a good role model”. In doing this she told her son:

I’m not always perfect, but I always still try to eat healthy and, and I have said that to him. You know mom is skinny and I said even though I don’t have extra weight, I still feel it’s important to eat good and be active.

Cate tried to “provide good examples” for her son. Demonstrating healthy behaviors appeared to lend support and credibility for the changes parents were creating in terms of promoting health. Kammie said to her daughter, “You know Maggie, we both – daddy and I both watch what we eat. We exercise”. Kylie emphasized, “I’ve always exercised. The kids always know that and I’ve always kind of emphasized that you know, you have to take care of your body because it’s the only body you’re getting”. Charlie felt this wasn’t always easy:

Because you’ve got to think about, I mean, again, 10 years ago or so I would have no problem just making myself just – you know, some barbecued chicken or whatever and a beer and that, and that’s dinner. There’s no –corn is the only vegetable if there’s corn on the cob. And be done with that, and then have a big sundae afterwards. Whereas now it’s like you have to think because it’s not just me. It’s affecting the whole family. And it’s going to affect their eating habits when they grow older.

In the case of Barb, she felt her husband's lack of role modeling was detrimental to creating change for her son. She said about her husband:

I love the guy but I get kind of disgusted when he'll have had his breakfast, which might have been toast or something like that, and coffee, and then we go down the road and he stops and he always has to have like one or two like baked goods or something with another coffee. And it's like, do you really need that? But I can't really say it. He's an adult. But I think that that's not a real good role model for the kids.

Parents felt it necessary to model the behaviors they desired in their children to assuage them into active participation in the making change process. What the investigator found is that for many parents this posed an internal struggle between wants and what is right or necessary. Anna admitted that "she didn't always follow [her] own advice" and her husband lacked credibility as "he doesn't practice what he preach[es]" since he drinks too much. Joyce said, "I tell them to be consistent and I'm not. I'm not. Sometimes I feel like I'm not a good example. Sometimes". Cate and Tom struggled with this as well. Both of them identified "liking their sweets" which caused this type of food to be readily available and visible to their children.

*Hitting the media maximum.* Hitting the media maximum was an *in vivo code* used by Kylie that described shutting off and/or limiting television, video game, and/or computer time. Not all parents felt that computer, video, and or screen time was a problem for their child. Yet, despite the lack of acknowledgement of a problem with screen time they supported their spouses decision to do so. For example, Charlie said:

I do feel bad because – I think our kids are pretty active so I kind of feel bad when they're, when we tell them they can't have TV and they can't have computer time and stuff. Because in my mind I don't think that they- our kids get as much time doing those things as I think the majority of the kids, but that doesn't make it right.

Mark felt his “middle child is more a TV freak than my other two. Maggie [his overweight child] is not. And she’ll even comment on that, that she doesn’t watch nearly as much TV as Lila does. And she doesn’t, but it’s still too much”. Parents that identified a problem with screen time chose to limit their child’s access. Limiting access to these sedentary activities served several different, and at times, overlapping purposes for parents. Cate felt watching television created hunger and encouraged bad food choices for her and her son. She found the “later you stay up the more Big Mac’s you see and the more, you know, Applebee’s commercials and by golly they all look really good”. She went on to say, “You watch these commercials and then you go, hum... I am hungry, what’s in the fridge?”. By avoiding television she and her son avoided the exposure to “glorious fat and calories” which were so enticing.

Barb and Kylie described the role of screen time as displacing physical activity for their child. By limiting its access the child was more likely to be active. Kylie:

Emphasized there are other things to do in life other than sit in front of the computer. So we talk about media is not just time on the computer or the television or whatever. It’s everything. So once you’ve hit your media maximum, you’re done. Go outside, go play.

Barb found this to be true as well as she described an incident when she was away for the weekend. She said:

I’m sure Aaron probably just sat around and watched TV the whole weekend. I’m – I don’t think he went outside. And that’s the other thing that’s really maddening is my husband will be like, yeah, you know, he watched TV all day. I don’t think he got up off the couch or I don’t think he went outside at all. I’m like, shut the TV off. You know, you can watch TV until this time and it needs to be shut off for the day.

In addition to creating inactivity, Barb found her son would get hooked on the television and then get into the habit of “coming home from school and turning on the TV” or Gameboy and “having snacks in front of the TV”. This made it difficult for her to get him to do anything physical. Barb limited her son’s access by “trying to get him out of the habit” and “shutting off the TV”. For parents limiting access to screen time consisted of either limiting usage or modifying content. By doing so the participants felt they were displacing inactivity and/or eating.

*Barriers.* Participants in this study discussed and described several barriers that impeded making positive changes for their child. These barriers were both internal and external for the parent. The ability to face or overcome them had much to do with the contextual conditions at any given time. Cate captured this simply in that “some days are easier than others” in the process of making change.

*Competing demands.* One of the greatest barriers to making change was the multiple demands and responsibilities of life for the parent, child, and family. Everyday life, it’s demands and stressors impacted the parent’s ability to make change in favor of health. Time and ease were cited as major factors in the participant’s ability to make choices that were healthier for their child. For example, when Cate had a lot going on or didn’t have food in the house she was more likely to say, “The heck with the calories” and prepare a less nutritious meal for her son. This was true for Anna who chose fast foods since they were “quick and easy” and were readily acceptable to the child. Alex spoke frequently of time as a significant barrier for him and his son and keeping him physically active. This added to the parental guilt for Alex.

I think because of time constraints that we both – so I feel guilty because the TV and the computer allow him to be self-amused and

then provides for us to go and do something else. And that's where I feel guilty about allowing that to happen.

Other parents described “a lot going on” or “a lot on their plates”. Kammie found the demands of her children's social engagements prevented her from ensuring healthy meals. She said:

It's – sometimes it's really hard when you're social and you – we don't dine out a lot but you know, we go to friends' house and I like to think that they don't drink a lot of soda, which they don't, but all of a sudden you look at the week and you're like, okay, we went out to dinner, we had dinner at so-and-so's house, then there was a birthday party. And all of a sudden, you're like, oh, my gosh, like there was four nights of soda drinking and a cake. And all of a sudden, it just seems like the busier your life gets, the harder it is. When you're not eating at home, it seems like there's always a celebration, it's a birthday party, it's a soccer end-of-season party, it's this, that – so that's, I think, the hardest thing.

Peggy, Joyce, and Serena spoke about other concerns for their child that drew and required their attention. The job of parenting posed many different threats for their children aside from being overweight. Peggy found that while her daughter was very social:

She has a lot of friends from different areas and I think it is a difficult age in that you have a lot of different influences and children are testing the waters as far as inappropriate language. Whether it be over the computer, in conversation in talking, commenting that comes through, sexting. With the text messages and stuff she is very appropriate, but a lot of messages and things that she has received [or] that are on her computer and that we have seen, because as a concerned parent I check those. Some have been very inappropriate so it is difficult. [There is] sexual content and also lot of swearing. Drop the F bomb, cyber bullying where you are calling, they are calling other people. [Some] other people that have commented on pictures and calling different people sluts, talking about boobs, a lot of the F word, a lot of I will slam that one into the black locker and different things like that.

Serena and Joyce cited worries over their children becoming involved in gang and drug activity. Serena kept “thinking about the school system, the gangs, the drugs”. Joyce found it incredibly stressful and overwhelming being a mother of a girl in the inner city. She describes this in the following excerpt:

It’s just me dealing with all the behaviors from [my daughter] and then dealing with them and it’s just rough. Being a single mother is rough in the inner city. I’m subjected to be here now and drugs and – just everything is around. Everything, everything, everything. I hate it. I absolutely hate it.

The fears of these parents were all too real and immediate for them. This was evident in their tone and body language as they described the threats to their children’s health and well-being.

Participants identified times or situations when they were unable to “do the right thing” and plainly “caved”. The act of caving in by the parent involved the persistence and unrelenting pestering by the child for food at a time when the parent’s focus was turned elsewhere. This appeared to be a strategic maneuver for some children. For example, Sara said:

[My daughter] plays it to get her way. Because I think she’s figured out throughout the years, if I throw a big enough fit, you’re going to cave and give me what I want.... [S]ometimes I just – I can just say no and just keep it up. And then other times, I’m just, you know, the little one’s screaming, the cat needs food, there’s 9,000 other things going on and it’s just like, fine. Go. Whatever you want. Go get it. Eat. Fine.

For Joyce, she would “give in and buy snacks because she’ll whine and throw a fit. And I just don’t want to argue with her”. What was a strategy for children to get their needs met under certain conditions created barriers for their parents.

*Come to me.* Worries and concerns over “giving him a complex” or creating an eating disorder held parents back from making change. Parental concern over worsening self esteem, not wanting “her to feel bad about herself”, and “driving them to eat” prevented them from pushing their child to eat better, eat less, and/or lose weight. Mark said, “I think that’s one of the things that I’m reluctant to engage in that for fear of making her self-confidence worsen”. He went on to say:

Mark (M): I don’t want – I don’t want to, I guess, stress it. I don’t want to bring up the point that hey, you need to be this way, you need to be careful what you eat – you need to, you need to – because I think that reinforces the fact that I think she’s unhealthy. And I don’t want that.

Investigator: What do you think that that would do to her?

M: Oh, dad, you think I’m fat.

Cate verified this. She was “always worried that I’m, I’m going to hurt his feelings, hurt his self esteem. Um, kind of drive him away when I could be helping”. Mothers were more likely to worry about the potential for eating disorders. Julie worried that if she pressed too hard her daughter would go to the “flip side”. She said, “There are so many kids that take [weight loss] and flip it to where they have problems the opposite way. And, that is certainly not something that we want to see happen”. Sharyl felt that weight loss maybe wasn’t the best approach. She said:

I think about him losing weight, but I’m not sure if that is a good [thing], I mean it scares me cause of the eating disorders too, you know, I don’t want to focus too much and have him feel like he, you know, has to do something drastic to lose weight. I, I want to be real careful of that.

Joyce identified similar concerns with regard to “anorexia” and “binging and purging”.

Given this worry of exacerbating their child’s health and well being, parents wanted their children to come to them for advice and/or the desire to lose weight. Parents

felt that if they knew their child wanted to “lose the weight” or were “ready” they would be more likely to persist and enforce healthier eating habits or engage in the food police.

Cate explained:

I don't want to make [my son] feel fat. I don't want to make his self esteem go down because of his weight and I want him to be able to come to me when he decides that enough is enough and he wants to do more to lose the weight and he can look at me as a resource rather than ....you know, an enemy, food.... controller. I want him to be able to come to me when he decides that enough is enough and he wants to do more to lose the weight.

Mark wanted his daughter to have the “conviction of losing some weight” and he would welcome this and help her more. Sara was concerned her daughter wasn't ready and ultimately, the desire to change had to come from her. She said:

[My daughter] has to listen and want to do. And if she doesn't get to that point, I don't know. She keeps telling me she's ready. She keeps telling me, I want to lose the weight. Okay. Well, then put down that third fudgecicle.

Interestingly, Sharyl was the only mom that reported her child coming to her. She experienced a sense of dread in this encounter. She said:

[My son] was getting out of the shower and he just said, Mom can I ask you a question? and I said, yeah anything. He said, how can I get rid of this. Cause he's got the roll, you know, and then it was like oh God. I mean I didn't sigh like that, but I was like well, I said, you know, you just gotta keep doing what you're doing. You gotta, you know, watch what you eat and maybe if you want to become more active and make a more organized way of doing sit ups every night or something. I can help you do that, you know. I said, but I think you do really well at making choices with your foods. I said, I'm not really sure, I'm not really sure.

Parents reported that should these worries be unfounded, meaning they truly knew no harm would come to their children, or should a medical condition arise, they would be more likely to play a stricter role as the food police and “step it up a little”. Cate “would

limit his serving sizes”. Kathy would “throw her [daughter’s] butt outside”. Mark was not clear on how he would change things but instead referred to it as “tough love” should his daughter develop health issues. No parent identified contacting their healthcare provider for further guidance or assistance or could identify specific changes aside from generalities. The contrary case was Kylie. For her there was no instance of her wanting her daughter to come to her for increased strictness should there be a medical problem. Her role as a parent was to “raise future adults”.

The barrier of *come to me* clearly influenced some parents more than others. Parents looked to their child to help them make change and promote healthier behaviors. In the absence of this parents were reluctant and, to a variable degree, held back based on the held belief of making the problem of being overweight or obese worse or creating yet another concern for their child’s health. The participant undertones of worry continued to permeate the sub-category of come to me.

*Food intimacy.* Participants described their children as using food for more than sustenance. For them food provided pleasure and comfort. There was an intimate relationship between child and food. Food became an entity or third person. Those children with strong ties to food posed a challenge and barrier for parents trying to make change. Parents identified food as “giving pleasure”, “providing comfort”, and making their child “lose control”. For some children there appeared to be an obsession or a drive to seek out food both overtly and covertly.

Comfort eating was described as eating to make one self feel better in the context of sadness, stress, or other disconcerting emotions. Eating did not occur in the setting of hunger and the chosen foods were typically less healthy or the food quantity was greater.

Tom described his daughter “turning to food” when picked on. The co-mingling of several contexts and conditions that permeated the study findings were clear. When Joyce’s daughter was “[hurt or upset] she eats”. Her daughter always [had been] “thin, slender” until “family problems arose; problems in the house – that way. And she started eating. A lot.... Her behavior started changing. Isolated, depressed, not doing good in school. I took her to therapy and they said she’s a feeling eater”. Food intimacy did not occur in isolation but was a result of solace found from food by the affected children. Kylie described food as a respite for her daughter which added to her tendency to gain weight. She said:

I think there’s some genetic predisposition and I think you add to that personality and then I think you add to that the social struggles. And I think yeah, so it’s been a – food has been a bit of a respite for her.

Serena thought [her granddaughter] was “an emotional eater. When there’s disappointment and stress and things going on in her life, I think she eats more”.

Comfort eating was mostly identified in girls. Kylie felt that the overarching message that if “you eat you’ll be happy and that food will solve your problems” was everywhere which only exacerbated the equation of food as happiness. Aaron did not speak specifically to the act of comfort eating per say but questioned if depression was a contributor for his son. He said:

I don’t know if he’s eating because he’s hungry because – or if it’s just – I don’t know. Is it possible to be eating of depression? I don’t know. Because I don’t know if that’s possible with younger kids at that age or – yeah, I guess it is.

Participants described their children as loving food. Kammie referred to her daughter as “loving food, she loves to eat. She’s like my little foodie. I mean she just has

always had like – I’ve always had to slow her down, even since she was probably 3 or 4 years old”. She goes on to describe an example:

It’s always sort of – and she doesn’t know this, but like the joke is, you know, all the kids will be in one room and they’ll be playing the Wii and Maggie will be sitting with us having appetizers. She would rather be with the adults socializing with a huge emphasis on food than playing with the kids. It’s something that gives her great pleasure.

For Sara it didn’t matter what type of food. Food was a driving force, “It doesn’t matter if I have a bag of chips or a bag of carrots, she’ll eat them until they’re gone, regardless of what it is”. She went on to say, “She will just eat. If it’s not nailed down, she’ll eat it. Food is always on her mind”. Food provided pleasure to Barb’s son. She described him as:

Very much into the tactile. He’s very tactile. And I think that food is another piece of that. You know, you figure you’re tasting it and you’re smelling it. You know, I think that that kind of thing is very – you know, stimulating for him to have that kind of thing.

For Karen her son “just likes food”.

The perceived lack of hunger and satiety created an obstacle for participants.

These parents described their children as always hungry. Kathy felt her daughter was “not ever full. She’s always hungry, this one”. This was true for Julie and her daughter.

She’ll say to me sometimes, I’m starving. I’m thinking, Mary, we just had breakfast 2 hours ago or whatever. So I don’t think you’re starving, you know. So, I don’t know. It’s obvious she’s not starving. I don’t know how to explain it. It’s certainly not where there’s been enough time between when she ate last to when she’s thinking she’s starving again.

Hunger or food desire was heightened within the context of sweets or junk food. For example, Barb described the following scenario.

Quite often, he'll be, I'm still hungry, but I'm so hungry. And I think, you know, he picks and chooses when he's hungry. You know, he can leave the main meal on the plate because he's full but then once he realizes – and we don't usually have dessert but we've been having ice cream, as I said, lately, but once there's something else there, then all of a sudden, I'm hungry.

Disordered behaviors were evident in some of the participant's children with regard to seeking or sneaking food. Kammie relayed a story by which her daughter attended Bible school for the food that was served. She said:

They had this like Bible study group or whatever, but really what it was is she wanted the junk food, because this woman would bring like cake and cookies and pies. And I wrote to the principal and I said, you know what? I have no problem with her exploring other religions, looking into other views of the world. That's great. I don't think she needs to be fed while she's doing it. And Regina came home not long after and said, oh, yeah, we had apple slices this time. And I went, good. [Her participation] slacked off after that.

Joyce described her daughter as “hustling up food” from her friend's parents and selling her belt for food. She said her daughter “traded a brand new belt I got. I got her a brand new belt. Hot belt. Everybody wanted it. She sold it for 5 bucks at school. [She bought] food, candy, and junk at the store”.

Several participants commonly described sneaky eating by their children. Children would hoard or sneak food only to be discovered at a later time by the parents. Sara called her daughter “a sneaky eater”. Kathy said about her daughter, “Overnight she'll get out of bed and go into the freezer or fridge and literally sneak food. I've found frozen pizzas in her room. I've found half-eaten cans of Spaghettios hidden in corners”.

Tom and Julie described finding candy wrappers:

Julie: You go up to help her clean her room and there are wrappers. I mean, I said, if you are going to eat something and you don't want us to know that you are eating it, why don't you at least throw the wrappers in the garbage. But, it's there.

Tom: Sit on the couch and put your hands between the cushions and see how many candy wrappers come out.

The only boy that exhibited this behavior was Barb's son. She described him as "very manipulative" and "knows he would be limited and would not be allowed to have anymore" so he resorted to sneaking food.

The bond created between the child and food was powerful. A comparison is drawn to that of addiction whereby the food drives the actions of the child. Parents described their children as craving, desiring, and/or working to get food in varying degrees and along different dimensions. This intimacy and the array of behaviors that food created in the children directly hampered participant ability to make change with regard to healthy eating and healthy eating behaviors.

*Shuts me down.* The concept of shuts me down described external based obstacles that were perceived as barriers by the participants from a global perspective outside of their child and everyday life. Parents were forced into a decision making process to either address the barriers they faced or strategize and overcome such obstacles. The obstacles varied for the participants but each made a conscious decision as how to proceed if at all. The desire to overcome was based on a value judgment on behalf of the parent. Participants had to weigh if the means justified the ends or if the means would achieve the desired result. Those parents that thought it was worth the fight to overcome the barrier attempted to do so. Peggy referred to this as "picking your battles". This was in reference to asking her ex-husband to provide healthier foods for their daughter. Peggy made a conscious decision not to pursue engaging her ex-husband and focus on other solutions. Karen opted not to fight with her mother as she described an interaction with her mother around her son's eating. She described her mother as serving "saucy

buttery foods” that her son loved and would consume large amounts of if able. In attempts to limit her son’s intake Karen’s mother told her to “leave him alone, he’s a kid”. In response Karen said, “I’m trying to just teach him and educate him you know”. Karen’s spoke of her mother’s reply, “He has plenty of time for that when he is older”. Karen described her mom as the “only one who can shut me down” and made no further attempts about this “sensitive issue”. Mark did not attempt to speak with his in-laws about limiting his daughter’s intake of crepes. His decision was based upon the worry of upsetting his in-laws and because of this judgment opted to keep silent.

Mark (M): Kammie’s parents are just up the street. So we see them a lot. My wife’s mother is Italian. So she cooks well and spoils her grandkids some.

Investigator (I): What do you do?

M: I don’t go there.

I: So why don’t you go there?

M: I don’t know. I mean she takes pride in – the kids’ grandfather makes crepes and they’re just spectacular. And they go there and he brags about how much each of them they’ve eaten – how many. He takes great pride in that.

Sharyl told of her initial encounter with her in-laws when attempting to moderate her son’s food intake.

We were trying to watch what Kolby ate and [his grandmother] was a mom who would make her children eat the whole plate and I just, I never believed in that. I, you know, you eat when your full and then if there is some left it’s okay, just leave it there. So I had to talk to her a few times about letting Kolby, you know, even though it’s in her house, I mean she was just, just, she was kind of a little overbearing and controlling that way. I think she felt a little threatened and she didn’t really say much, but it just felt like I was over, stepping on her toes, she didn’t like that I was telling her how to, how to treat her grandson.

This was an incremental struggle for Sharyl. It was only over time that her mother-in-law resigned to working with her but only to a point. She said, “She started buying vegetables

other than corn, canned corn, and canned peas. Something as simple as that. Truly”. Sharyl thought, “Wow, maybe she really is trying to listen and hear it... that I’m not trying to change her, but that I’m just trying to teach, you know. So yeah, it did change over the years”. Kylie shared a similar reflection with her Italian in-laws as she moderated her children’s food behaviors. Because of her nature and what was at stake with her children she refused to yield.

Oh, my God. His family was completely mystified by me when I was like, aw, I don’t want to eat that. They were just like, you need to eat. You’re here, you need to eat. I think when our kids were little, I think that silently, they probably criticized me a lot more, but I think over the years, they’ve seen how much I’ve had to overcome with our children, and I think there’s some respect built into the fact that the things that I have done work, whether it’s about food or discipline or school. I don’t take the easy route, and if it’s painful, we’re all going to suffer together, but it’s going to happen. So you know, certainly my mother-in-law and my sister-in-laws have said to Charlie that they know without me, my kids would not be the people that they are. So they kind of backed off.

In some cases the external barrier was the parent. This presented a dichotomous rendering as the interaction was viewed through the lens of the grandparent. The parent proceeded to shut down the grandparent who was attempting to make healthy changes. Kathy said, “My mom has always been like, you’re going to make her fat, you’re going to make her fat. I used to laugh. I laughed at her and I said, oh, mom, you’re being ridiculous”. Kathy simply ignored her mother. Sara’s mother’s response was more extreme:

Last year, when [my daughter] went to the endocrinologist and they had put her on the thyroid medication and the cholesterol medication, and my mother yelled at me and told me I was going to kill her if I kept feeding her the way I was feeding her.

Sara and Kathy presented an alternative perspective to the concept of shuts me down as previous discussed.

Serena was the sole grandmother interviewed in this study and was the parent to her granddaughter for 13 years. She added credence to the grandmother's plight described by Kathy and Sara. Serena portrayed her daughter as a distinct and insurmountable barrier on all fronts in caring for her granddaughter. During the interview her turmoil was vivid and provoked empathy as she shared her story. Serena said, "As much as I'm trying to get stability, her mom's going the opposite and trying to get – making her feel unstable all the time". Serena kept hitting the wall because she was not "the mommy" and her daughter refused to turn over custody to her. She said:

Serena (S): My problem is, I have all the responsibility financially, emotionally, everything, but I don't have any rights. I don't have any legal right. And I tried to get legal rights, but ... it's very hard to prove unfit mother and they will just give her back to her eventually because she is her legal mother.

Investigator: And your daughter wasn't willing to terminate her rights?

S: No. No. She's on the other hand very spiteful. It's kind of sad she doesn't appreciate what I do. Instead, she is spiteful. If anything goes wrong, if Alisha gets mouthy or whatever, it's my fault.

Because of this Serena was unable to make healthy changes for her granddaughter. She described this below:

That's where I hit a wall again, because they said, oh, no, you can't come in here and sign her up for any type of religion. Her mom has to do it and her mom has to sign all the papers. And my daughter won't do it. She doesn't really know if she even believes in the Catholic religion. So I just keep, you know, bumping around. I just keep hitting blank walls, even to the point where my daughter called the doctor's office and she got so mad because I was making appointments and taking her and taking her to her physicals and all that – just because my daughter's irresponsible, not because I'm trying to have power – and she called the doctor's office and said, do not let my mother make any appointments or bring her in here

any more. So I said okay, this is wonderful. Now if she gets hurts when my daughter's not around, then what do I do?

Serena attempted to enroll her granddaughter in sports, the local community club, and other programs to promote physical fitness and was unable to do so. The response was consistent. She said, "Everything that I come up with, I come up short because I'm not the legal parent. It's huge. Because I've tried all kinds of social services, counseling and everything. Every single thing I do, you're not the mommy". Serena goes on to describe her frustration, "You're still at a standstill with everything you're trying to do to help. You're just backed against the wall because you can't do anything legally". Despite these unrelenting barriers and being shut down continuously Serena kept "bumping along" for her granddaughter.

***Finding the hook: Linking process concept.*** Change and promoting health required the participation of at least two individuals, parent and child. The role of the parent was foundational to the BSP of making change yet contemporaneously limited. For optimal change and subsequent success there must be a buy-in from the child. The process of finding the hook was an *in vivo code* that described the parental search to create buy-in, active participation, and ultimately engagement on behalf of the child. This was a reiterative process whereby parents would search for what "works" and thereby engaging their child in healthier behaviors. Successful attempts at engaging their child proceeded along the theoretical path on to formal engagement. Unsuccessful attempts were discarded in search of finding the hook and engaging the child using other strategies and re-initiating the process again.

Karen provided an example of the time she tried to follow advice on how to encourage healthy foods through exposure. She said, "You know, they say to put them

on his plate every single time and keep trying, well it's five years of that... I'm done with that cucumber issue, you know, because it just doesn't work". Alex described the importance of finding the hook for their son to participate in physical activity. Alex relayed the following incident:

Alex (A): If he doesn't buy into it, he will let you know in a lot of ways. He will not participate. Barb and Aaron tried introductory Tai Kwon Do that was being offered through the Recs & Park and he was adamant he wanted to Mu Mon Do and we said we can't do it for economic reasons and time wise, to the point there was a struggle and fighting and we finally got to the point where it just wasn't worth it to bring him and have him not participate. He literally had dug his heels, entrenched himself that he was not going to participate and he held true to that.

Investigator: So then do you try to regroup and try something?

A: We try to regroup as much as we can up to the point where we simply can't continue what – and at some point, I realize it's getting frugal and pointless to try and continue. And I guess it's like just not worth it any more. Because he doesn't want to do it. I want him to do it. We want him to do it. He doesn't want to do it. And all of a sudden, it's no longer – it's just escalating that we're upset that he's not wanting to do it and he's upset because we're forcing him to do it. So it's just keeps building up.

Barb surmised the importance of the linking process concept, finding the hook. She said, "You know, get the kid to buy into it. That's really where – I think that's really where you're going to get a lot of mileage is to have the kid buy into it". After finding the hook parents proceeded to hold on to their child's interest by fully engaging and attempting to entrench them in healthy behaviors.

The back and forth nature of finding the hook was similar to that of the recycling process. Physical activity, healthy eating, and/or limiting access provided the base product for making change but were modified and refined over time as a result of the child's willingness to buy in. Implicit within recycling and congruent with the process of finding the hook the action of making change never dissipated or was completely

discarded. It is dynamic, formative, continuous, and in flux. There must be a buy in from the child for these changes to be successful. Finding the hook is requisite to engagement and subsequent for successful change.

#### 4.7 Core Concept: Engagement.

Once a parent found something that captured their child’s interest or found the hook there were attempts to fully engage their child in participating in healthier life style habits. The overarching context of parenting styles, parent-child interpersonal attributes, developmental level, and child preferences are an essential framework that either allows, hampers, or prevents the engagement of the child. The following sub-categories (see Figure 4.4) directly influenced the participant’s ability to engage their child: Motivating force, influential peers, and social and fun. Importantly, the majority of these sub-categories intertwine, influence, and overlap with one another.

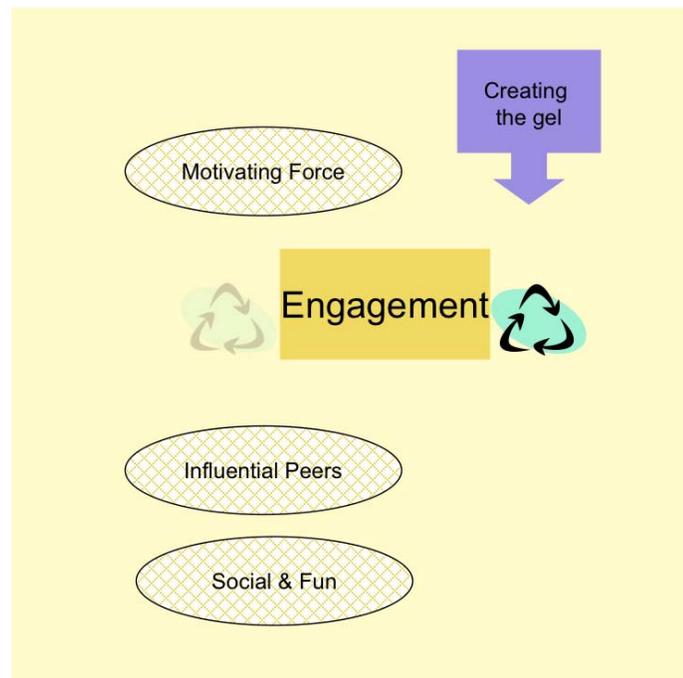


Figure 4.4. Conceptual representation of the sub-categories for the core process concept of Engagement and its linking process concept.

**Motivating force.** Children that actively engaged in healthier habits tended to do so for the personal value or held meaning associated with any given healthier action. This was a motivating force for the child whereby they gained in some manner and from which parents capitalized upon. For example, Peggy was able to engage her child in healthier habits because “[her daughter] would like to wear a bikini this summer”. Kylie described her trading activity for her daughter’s wants. She said:

I really instituted the – you want to go to horseback riding lessons, you need to ride your bike; I got a bike; we rode our bike everywhere. If you want to go to the library, you can walk there. I mean it’s half a mile. So I instituted being more hard core about, you need to just exercise more. And it doesn’t have to be, I’m going to exercise right now. It has to be, well, I’m going there anyway and I’m going to choose to get there on my own power. So I’ve probably done those two things. Because at the end, she gets something she wants. So it’s good. You know, she loves the library. She loves the horses. So I’m holding it out as, you can have those things but here’s what you need to do to get it and she’s open to that.

Kammie and Mark encouraged cooking with their daughter as a means to learning about healthy foods. Mark said, “She likes to help with dinner and when she puts it together, she really takes great pride in making a great salad. So we talked about [it’s healthiness] as she’s making it, and just reinforcing the health of it”.

At times parents resorted to other tactics such as guilt and bribery. Anna’s son helped with chores partly because it “gave him authority” and partly because:

It’s kind of like a guilt thing, I think, and I don’t know if that’s really good for him but – because he’ll feel guilty if I just go down and do [barn chores] – I’ll say, oh just forget it and go do it. Well, he’ll come down [because he feels badly].

Tom and Julie used bribery to get their daughter to join a weight loss program. Julie described this in the following excerpt:

We did kind of bribe [our daughter] a little bit. Because she has been begging for the last year for a cell phone and we have put her off and put her off.... Well, you know, every teenager, every 6, 7, 8th grade kid has a cell phone and she wanted one really bad so that was part of the deal. The deal was that she joined this [weight loss program] with me and she did it the right way. Not foolishly and she took weight off.

Barb and Alex redefined bribery in terms of a “reward system” for “outside time or physical activity you get one point. And he uses those points to trade in for some sort of reward”.

The process of engagement did not necessarily need to be an active role for parents. Some children in this study engaged themselves into making healthier choices and habits leaving the parents in a supportive role. What was evident in these instances was that the goals between parent and child were different. The child sought to lose weight while the parents sought to promote health and “get the focus off the weight”. However, the act of losing weight provided a motivating force for children to continue healthier habits. Karen said that in response to her son losing weight from running he “thought that [losing weight] was greatest thing and that is when he thought he should continue to run”. Peggy felt it was the response of others to her daughter’s weight loss that was a powerful motivator. She said:

I think there is a positive response and then there is encouragement that people see that you look better, that you are looking healthier, and you get positive reinforcement from that....[H]er friends, her family encourage her to keep up the good work, that she is looking better.

Julie’s mother had a significant effect on her daughter’s continued weight loss. “Each time she weighs in the first thing she does when we get in the car ready to leave [is to] call her grandmother. Gram, I lost blah blah blah. Myrtle is really good at boosting her”.

Julie and Tom attributed this to making her feel good and creating an independent motivator for their daughter. Julie said:

It certainly feels good [for her]. The last few weeks while we have been doing this and she gets on the scale and she loses a little something, she's excited. Umm, she came back after she had this small gain and, umm, got on the treadmill. [Y]ou know, it wasn't, Mary you should really get on the treadmill or you should get out and snowshoe or you should do this.

Regardless of the motivating force that engaged the child into healthier actions parents provided praise and accolades such as "That's great. That's a good thing.", "Great job. Keep it up", "It [weight loss] really shows" to acknowledge their child's accomplishments and with the hope of enhancing engagement.

***Influential peers.*** Pre-adolescence is a period of psychological and social transition between childhood and adulthood. Children at this age are very sensitive to their changing bodies and often measure their physical appearance and skills against both their peers and idealized images. During this stage the role of the peer group becomes increasingly important and influential as pre-adolescents strive to belong and fit in (DeHart et al., 2004). The influence of the peer group in this study was both positive and negative. The influence of peers co-mingled with many of the sub-categories presented in the study in general and the sub-categories of motivating force in particular. For example, Cate described this in the following excerpt:

I think last year when he played sports and was having a tough time keeping up with the other kids was another point at which he said, I've got to lose some weight and that's, I think that's about when I noticed that, you know, [no] seconds and thirds and cutting back on desserts was something that he chose. [It] probably had nothing to do with me telling him, he needed to.

In this instance the influence of peers was a motivating force for Cate's son. Parents whose children participated in group or team sports received positive influences thereby enhancing their child's physical activity. In this study the investigator found the phenomena of peer influence more strongly in girls. Serena's granddaughter, who was initially interested in boxing, was talked out of participating by a friend.

She came to me with, I would really like to learn how to box. I said great. That's great. Physical fitness. It's great for self esteem, for a lot of things. She went there once and there was a lot of older people there, not enough young people. And she just walked up and said oh, I don't think I'm going to do this because these are all old people and gave up on that. And the instructor's a wonderful guy. He's very motivating. He said well you can't – just have her talk to me; just have her talk to me. Well, no. She gave up. And her friend was with her and her friend said, oh, I'm not going in there. So she let her friend influence her.

Serena provided other examples of how her granddaughter's friends contributed to her lack of motivation and involvement. She said:

The one which [my granddaughter] hangs around with a lot, Mandy, is always lost. No one is keeping track of her, telling her to come in at a certain time, watching what she's doing. She can pretty much do whatever she wants. And these are the kids that she's attracted to, rather than the kids that are motivated and at home and are involved in a lot of things.

Tom and Julie felt similarly that their daughter's peer group influenced her comfort of being overweight by blending in. Tom said:

Tom (T): One of the other things, I mean, not in a bad sense. In 6<sup>th</sup> grade, the little clique that she got in with were all heavy girls.

Investigator (I): What do you think that did for her?

T: I mean, I think she felt more comfortable, she could blend in easier.

I: What did you think that allowed her to do?

T: I mean, I think it just allowed her to eat, you know. Where as kids will be kids and if you're fat. These girls were already big. Nobody said anything like that so... it was a comfort for her.

Kammie found “it hard for her [daughter] because when she’s with her friends and she’s seeing her friends be able to eat anything they want, she sort of just jumps in with everyone else”. The influence of peers could either detract or enhance the ability of the parents for cementing engagement and creating positive changes on many fronts. Parents struggled at engaging their child if the peer influence tended toward sedentary or less healthy habits.

***Social and fun.*** The ability of a parent to fully engage their child in physical activity was directly related to the sub-category of social and fun. Activities involving others such as a friend, parent, or family member increased the child’s participation. Activities that were both social and fun engaged the participant’s children in this study to a greater extent. Parents who were willing to be more physically active with their child increased child participation regardless of the age of the child. Karen said, “We’ll go outside with him and play baseball and throw the ball around and stuff and shoot the basketballs and stuff like that and doing it with him definitely is more exciting for him half the time. He loves that”. Barb was able to engage her son by taking walks with him which gave them a chance to talk about other healthy things. She said:

I mean my goal is even if we don’t lose weight, but if we get a little more active, that’s better than [nothing]. So we’ve been taking walks. And it’s been funny to go for walks with him, because we started talking about nutrition type things.

Although Alex was not currently active with his son, he felt that “it would be a good step toward exercise” if he participated with him.

Parents felt that having a community center or “a fun place to go” would encourage their child to become more physically active. Cate wished for a community

center for her son. She felt that the social aspect would entice him by providing more fun. The YMCA was identified by several parents as creating a means of physical activity that was both social and fun for their child. Joyce and her daughter would participate in aerobics. She described her daughter as “happy, smiling and laughing. She met people. She had a good time.” Joyce added that her daughter lost about 4 pounds doing this. Serena described the added value of activities that are both social, fun, and involve peers:

I work with children and [my granddaughter] has access to do anything at the Y that she wants. And she does go there a couple of times a week. Walks the track. They have a new teen center. So she does take advantage of that. She could take advantage of more but she needs to find other friends that want to do things with her.

Sara who had difficulty getting her daughter “to do anything”, was able to engage her child in a camp for overweight children:

So my mom was trying to find something that was geared toward kids. So she found [a program for overweight kids]. She was like, hey, how about we try this? Okay. We’ll try it and see if it works. [My daughter] was gung ho for it. She had a ball at every meeting.

The “fun factor” usurped the social factor for some children. This demonstrated a double edge to engaging the child in physical activity. Children who found sedentary activities, television, and/or the computer more fun than being active and/or social posed an additional challenge for parents. Parents had to compete or up the ante to engage their children. For Barb this required her to “be creative and think outside the box”. She engaged her son by asking him to be her coach for *The Biggest Loser* competition at work.

All of a sudden, I get the brainstorm. Okay, Aaron needs to lose weight. I can use to lose weight. Whatever. So I decided to sign up and ask Aaron if he’d be my personal coach for it. And he’s like, oh,

what do you mean? I explained how we all put money in and then whoever wins – loses the most weight, gets the money. I said, if I win, I'll split it with you... [S]o he and I have been working on this.

Cate described her son being “sucked into the man cave” where “he loves to tinker”. At times she found it difficult to intervene and engage him in physical activities. While Kammie’s daughter “likes to be active”. It was the “nice balance of, it’s fun, it’s social, but it’s also healthy” that intensified her child’s engagement in physical activity.

***Linking process concept: Creating the gel.*** Once a parent had successfully engaged their child in making change there was a quest for creating the gel to sustain healthy changes. The linking process concept of creating the gel signified the perpetual circuitous movement between engagement and teamwork that was directly influenced by the level of appeal any given healthy behavior possessed for the child and the willingness of the parent to encourage them. The role of the parent in creating the gel was primarily supportive in nature. Meaning, once a child was engaged in a particular healthy behavior the parents attempted to solidify such changes. Barb described “the gel” as developing new habits for her son such as walking in the woods, talking about nutrition, “shutting off the TV”, and doing “fun things with him”. Barb would preempt the television show and engage her son to go walking in the woods, an activity she knew her son enjoyed while at the same time discussing nutrition. Cate created the gel for her son by supporting him and bringing him to jujitsu despite Cate feeling that it was a “scary sport”. She felt it was a means of physical activity for her son that he enjoyed and would agreeably participate in while at the same time get him out of the “man cave”. Other parents had their children go food shopping with them so together they could “pick and choose” healthier

alternatives that they liked. Over time there was an initiation of new healthier habits that displaced the bad or unhealthy habits.

In some instances the HCP assisted the parent in creating the gel for the child. Cate related her son's HCP's advice at his last well child exam. She "mentioned to him and that, you know, if you can cut out just one thing like the sugary drinks. Then you're looking probably at a weight loss". Cate felt this was a positive step since "he went right out to the car and dumped the drink that he had bought from school". She added, "It always sounds better when it's coming from somebody besides mom, so yeah, it was a positive thing". Julie called ahead of her daughter's well child visit to request that her daughter's HCP "talk to her about healthy eating and that type of thing 'cause we had been talking more about it". After the visit Julie reported, "She came out of that ready to do something, then it just kind of, as it goes along, it kind of slides off". Anna thought "that might be what started [her son] in really thinking about [changing his eating]."

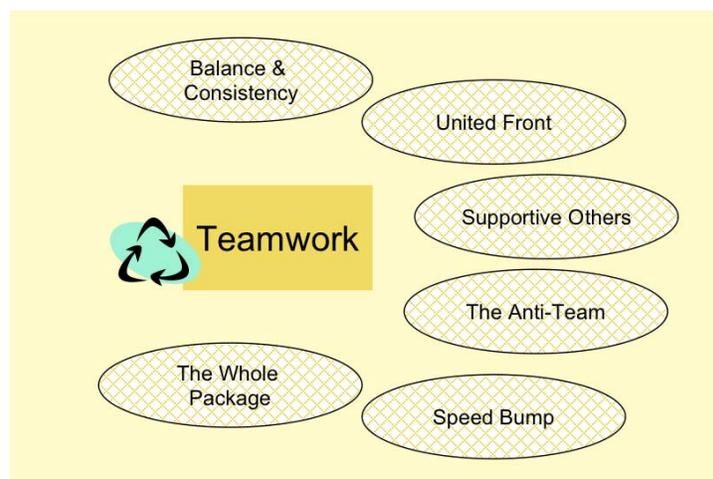
Importantly, this was not a straightforward process but represented the culmination and interplay of the previous core process concepts, sub-categories, and contextual conditions. No one action or incident was responsible for creating the gel and kindling teamwork. It was the sum of various elements and contexts that met the needs of the parent-child dyad.

#### **4.8 Core Concept: Teamwork.**

A team is defined as a small number of people with complementary skills who are committed to a common purpose, have identified goals, and an approach for which they are mutually accountable. The members of a team interact dynamically, interdependently, and adaptively to achieve these specified, shared, and valued objectives

to accomplish goals that would otherwise be impossible for the individual working alone (Prebble & Frederick, 2009). With this in forethought, the investigator discovered that parents who were successful in making and sustaining healthy changes used teamwork.

The team or the ability to achieve teamwork involved at minimum the participant and the child. On occasion the team players included the second parent or spousal partner, various family members, and friends. The team leader was identified early on in theory construction and was presented in taking the lead. As the parent moved toward making change, engaging the child, and creating the gel there was incremental team building. The participants in the study varied broadly in their ability to create teamwork allowing the investigator to fully explore the range of properties and dimensions within this core process concept. In addition to the attributes of teamwork the investigator discovered attributes that contributed to the anti-team. The sub-categories of balance and consistency, supportive others, united front, speed bump, the anti-team, and the whole package were the sub-categories that emerged from the data within the core process concept of teamwork (see Figure 4.5).



*Figure 4.5.* Conceptual representation of the sub-categories for the core process concept of Teamwork.

***Balance and consistency.*** The ability for parents to create and maintain boundaries, limitations, and expectations enhanced their ability to maintain and sustain change for the child. For Joyce being consistent was of great value in making change. It was only when she was unable to maintain the balance and consistency with her daughter that she realized its significance. Joyce tried hard to improve her daughter's dietary habits but found that her inconsistency in doing so created problems. She provided the following example:

She'll have a bad day. She'll come home from school. If I have a little money, we'll go to the WalMart and of course there's a McDonalds and Mommy, I'm hungry. Can I get something? And we'll go sit down and we'll have a Big Mac meal or – I'm not consistent on it. You know what I mean? Or I'll give in and buy snacks because she'll whine and throw a fit.

Joyce felt that she really needed “to be more consistent and stick to her guns”. She tried hard “not slide back and start letting things go again. That's what I have a hard time with, being consistent”. Grandmother, Serena, described her daughter as always “being inconsistent”. Her daughter “would scream and yell at me. She [the granddaughter] should be over there [with her mom]. [My daughter] has her one day and [then my granddaughter] is back at my house”. Because there was no consistency or balance in their lives it was hard for Serena to make changes. Serena felt she was sabotaged on a regular basis creating hardship, “hitting the wall”, and undermining her ability to be consistent.

Kylie presented the opposite end of the dimensional range. She had clear rules and limitations which facilitated her ability to provide balance and consistency for her children. Kylie referred to this as “natural consequences”:

I go to school on Tuesday nights and the kids will say, oh, we had dessert. And I'll say, but you had dessert this morning – you picked something out and said you wanted that and that was your dessert for the day. And they'll kind of look at me like, hmm, didn't think you'd say anything. So I'd say, okay, you don't get dessert tomorrow. So I try to make it kind of – eh, natural consequence. Because I'm like – I like dessert. I like dessert every day. And I'm like, if I have M&M's in the morning and it's a serving of M&M's, that's fine. But that's all the dessert I'm going to have today. And so that's what I try to say to the kids is that it's all about balance. It's all out there and I want it all, but tomorrow is a new day. And if I didn't have apple pie today, I had M&M's, well, tomorrow I'll have apple pie. I mean it's not something to spaz out about. It's just kind of like, all right, well that's what I worked for today.

Kammie and Mark found balance by providing consistent meals. Kammie found:

Sitting down together eating dinner [was] extremely helpful. When you have one of those weeks where everyone's going in different directions and there's not a family dinner, I think habits get a little ... we're eating not as healthy. You know, if I'm not actually cooking a meal, then it ends up being – you know, probably less healthy choices – cereal or my husband's making pancakes, something like that for dinner, so that stuff just gets away with you.

Mark added that getting away from dessert every night was “relatively successful for a short period of time” but the “hard part [was] ...carrying on with that, being consistent”.

All parents struggled to some extent with finding balance and consistency for their overweight child and found it was a melding of several circumstances that assisted or detracted from being consistent. Sharyl who was very consistent with regard to promoting healthy eating and physical exercise said, “I get tired as a mother” and her son “does love the computer and he does love to watch TV and we put limits on that, try to. It doesn't always work.... So I'm not always consistent with that”. She found there was a tremendous amount of “work” associated with being a mom of an overweight child. Achieving balance and consistency proved challenging for the majority of parents and

elusive for some. Regardless, this subcategory elucidates the unremitting competing demands of parenthood and the unpredictability of life.

**United front.** Providing consistency and “balancing it all out” was part of the quest in making change and proved easier when parents held a “united front”. The ability to form a united front was helpful to both parents in general and participant fathers in particular. Fathers did not occupy the role of the lead parent in this study.

Correspondingly, the team leader was the mother, which left fathers in a secondary role. Karen said, “It is mostly me...educating him about healthy choices” but “ [my husband] pretty much says the same thing” and she found he “supported her”.

Fathers were more likely to adhere to healthy eating and refraining from sedentary activities for their children when a mutual agreement was formed with their wives. For example, Charlie said:

Well, like if [my wife and I] decide there's no electronics today and we say it together when we're both there instead of when – if Kylie's running out for errands and something and I'm home and then the kids go, can we have TV time, and I'll be like no, I really don't want – well, why not? Well, we didn't have any earlier or whatever and mom said we – if we did all of our – cleaned our room and put our clothes away that we could probably get some TV time or we could have some electronics and so I'll be like, I wish I'd have talked this over with your mother first. Whereas if we discussed it and there's no TV time and I'm doing this – we're not allowing any dessert today because of all the junk food that they've been eating all week and stuff and it'll be decided and we made it clear to them. So then if they come to me after Kylie runs – or goes out to run errands, then at least I can be – I'm still – I'm now just supporting, backing up what we – both Kylie and I had decided and told them earlier. So it's a lot easier because I'm like no, and there's no discussion. It's been decided and – well, why can't you change them – why can't you change? And I'll say well, wait until your mother gets home and then you can ask us both and if we decide we can change – that it can be changed, then we will. Because this way, I kind of let them know that I'm not making the decision to either be good or be bad. It's based on the decision that we decided together

and that's what I'm sticking to. So that way, it's a little bit easier because then they can't wear me down because I can say no, your mother and I have already made an agreement. We've already decided.

Mark agreed that having a united front made it easier to decrease desserts but explained he and his wife "just got to come together and say, look, in the best interests of [the children], certainly of [his overweight child]. Maybe we want to revert back to the dessert not being an everyday thing". Alex felt, "It's important if one of us has a goal or something that we both desire, we're supportive of each other, even though we may not necessarily agree with it entirely". Even though aligning with his wife was important Alex went on to say that "in time it's going to be more effective than singular but I think ultimately, it does come down to the individual having to decide that they need to do".

Parents without a household partner/husband used a variation of the united front by initiating a partnership with their child to assume healthier behaviors. For Peggy this was successful. After a visit to her daughter's HCP and the realization of her daughter's weight gain Peggy said:

[We were] talking about what she can do to exercise and what we can do make, to make things better. You know, what can we do? I said, you know, well let's make a list of things we can do together. You know, make a list of things and remember a good way to start is, you know, by making sure we get our fruits and vegetables every day. We have to write it down so that we know that we are getting everything that we are supposed to get. We've got diaries and writing things down and really making a conscious effort to make sure we do something that is active. We work as a team and that, as a team, we can do anything.

Joyce was less successful in this effort. She described her attempt at making a plan with her daughter to eat better.

I explained to [my daughter] and tell her the consequences behind things, how sick you can get. Just eat normal meals. Eat what

mommy gives you. If you're hungry later, get an apple. She'll walk and she'll be yeah, yeah, yeah and she'll be into it for a minute.

Cate and Kathy lived with a partner. The united front under these circumstances was somewhat limited but still present. The partner provided support to the mother for healthier changes they were trying to make. Cate and Kathy both felt this was helpful and made it easier to commit and to sustain healthier changes. For example Cate said:

[My partner] doesn't make a big deal if there's not a potato or rice or some other side dish. He, in the same way that I kind of, you know, give the nod to [my son] that well that's probably enough of that particular [food]. He will do that as well. Maybe not as much 'cause he doesn't feel it is his place as much.

Kathy found limiting her daughter's food intake easier when her fiancée was around. He doesn't "sneak her food" and "when he dishes out the food he gives her less". Kathy said by doing this she felt supported and found it easier to be resilient to her daughter's wants for more food. For the participants in this study the ability to have agreed upon expectations and goals fostered the ability for the parent, child, and family to create and facilitate teamwork.

***Supportive others.*** As with any good team there is collaboration with others. Participants in this study identified individuals who they felt supported them. Healthcare providers, friends, and other family members were credited for assisting them in making change and holding strong with these changes. The type of support that participants described varied considerably from just understanding or being available to actively participating in making change for the overweight child. For example, Joyce described her friend as her only support person. "She's just always there for me. She understands [my daughter], whereas nobody else does. They just look at her and be like, they think that bitch is crazy. No, she's not. [My friend] understands Nina."

Although Joyce did not specify her HCP as a support she said that she could go to her own healthcare provider if she needed to get “professional advice”. She said, “I can just call [my HCP] and ask her [for help] and she gives me advice on what to do and – yeah – who to call. She hooked me up with a social worker”. Sharyl’s son’s new HCP was identified as a support in a general sense by “listening and helping with any advice. Nothing real specific yet. We haven’t seen him that often but I just know that he’s there if I need help”. This was true for Anna as well. She felt, “[Her son could] see [his HCP] any time he wanted to and she’d give us advice or help us do anything”. Peggy described her daughter’s HCP as providing support:

[My daughter] listens and absorbs and takes action on her [HCP] recommendations because she has known her all her life and she trusts her. [My daughter] believes in her and she knows that she is there to give her the best care possible. That she wants to be a healthy person and she wants to continue that and [her HCP] is someone that she trusts. It’s a trusting person who is the person that takes care of her... and that means a tremendous amount to her.

Barb felt her daughter and her job supported her making changes to promote her son’s health. Barb changed her hours at work to accommodate her son’s schedule so she could “connect with him”. She found work very supportive of this change. Barb explained:

My boss has been great about it. And actually the nurse that I work with – she goes, I think that’s great. This is what you [need to] do. And she’s been very supportive. You do what you have to do.

Barb described her daughter’s influence on helping to make change. Barb and her daughter would talk about her son. Her daughter, who wanted to become a vegan, would encourage her brother by “cook[ing] with him and do[ing] some baking. And she really

does try to do a lot with him”. Anna felt that her son’s twin indirectly helped with her son becoming more active. She said:

His brother has helped, because his brother will get on the bike when he [the overweight son] wants to get on and go with him. So if there’s only one bike – like if it’s only one bike that doesn’t have a flat tire, for instance, then Bob [the twin] will run with him and they’ll switch back and forth so that Bill gets both running and biking exercise.

Kylie, Tom, and Julie identified their parents and extended family as supportive of making healthier changes. Kylie said:

[My mother] and my mother-in-law support what I say about food. You know, when I’ll say to the kids, you’re done – no matter whose table I’m sitting at, they’ll say, well, mom says you’re done. You’re done. If I say there’s no dessert today they’ve already had a treat, they both support that. So I feel like our extended families have been good.

Charlie agreed that Kylie’s family provided them with support for healthy eating. He said:

We’ll go on Sunday to my mother-in-law’s for dinner and she always has a very well balanced and what appears to me to be a rather healthy meal. And she tries to accommodate like Regina and the fact that she doesn’t like meat and stuff, whereas she’s getting something to – as a substitute, but there’s also enough of a variety for fruits and vegetables.

Tom and Julie found that after speaking with Tom’s mother about food availability she was willing to help them by providing healthy foods for snacks for their daughter.

Julie (J): Between us and his mother we would do a salad or we would do something for fruit instead of what, of course, with them [working] in the store, there is everything there and you can graze from one end to the other if you choose to.

Tom (T): Grandma doesn’t say no.

J: Yea, grandma doesn’t say no so that was a struggle until we talked with her, you know. We need some help with this, umm.

Investigator: What was her response, what did she say?

T: She didn’t have a problem with it.

J: Yea, she would have you know, she would have salad there for her or popcorn.

With the exception of Serena, the majority of parents cited some type of external support which aided in their ability to create teamwork and working for a common goal of making and sustaining change to promote the health of their child.

***The anti-team.*** The anti-team was a term used by the investigator that identified actions that posed barriers to creating teamwork. These actions were derisive and/or colluding. Sara's daughter would pit her mother and grandmother against one another. There was no united front to staunch this behavior. For example, Sara said, "If I yell at Alice, immediately she's on the phone calling my mother, telling on me. I'm like, I'm 38 years old. What do you think your grandmother's going to do?". Because of this Sara thought:

A lot of times she won't talk to me about [her weight]. She'll talk to grandma. Grandma is there for her. Grandma's a lot softer. Grandma tends to coddle her. Not in a food way, but it's, you know, oh, you poor baby, it's okay. And me, I'm more of the, quit complaining about it and do something. So she'd rather go talk to grandma. Grandma's not going to be mean about it. Well, you've been telling me the same thing for the last three days. What have you done? Nothing. I think that just makes her not want to talk to me more. You know, because in her mind, I'm being mean because I want her to – go take out the garbage because then you have to walk to the dumpster. That's just mean. No, you keep saying you want to lose weight. You keep saying you want to exercise. I'm giving you the opportunity. It's not even strenuous exercise. It's walking from the apartment to the dumpster, but at least it's moving.

Serena felt her husband would undermine her attempts at getting her granddaughter more active, providing limits, and consistency. She said:

He has to be the hero. He can't be the disciplinarian. I have to be the mean one. Now the granddaughter needs a computer. Okay.... A thousand dollar computer. All right. Now she needs a cell phone. Okay. They just go up to Verizon and get a cell phone with

everything on it. So that's how he handles it. Just whatever she wants.

Julie believed her husband's way was "not an approach that I think works. And, we have talked about that before cause he just kind of comes out and says [things]". His comments were degrading toward his daughter and further isolated her from engaging in change and working with them. For example, Tom said to his daughter:

What's that your second or third chocolate bar today? Hmmph, remember grandpa this morning pretty near trip[ped] over something cause he didn't see it [on account of his diabetes]. Keep putting the chocolate bars to you. I said, you can see it. You don't need to bring [diabetes] on yourself.

On a separate incident Tom said to his daughter, "You get up a little slower, you got grandma's problem? All the weight you're carrying around, start to bother your hips or what? I say. I should probably be a little nicer". Tom agreed his comments were blunt and to the point but failed to respond to his wife's comment that his approach didn't work. Tom did note that his daughter would "slow down [eating] for a few days" but then "went back at it". Julie, the lead parent or "boss", was limited in her ability to create teamwork.

The role of siblings was discussed little by participants aside from comparing them to one another in shapes, likes, and personality. Julie and Alex provided the exception to this. They spoke of incidences where the siblings created conflict and tension within the family by name-calling and/or antagonizing the overweight child. Alex spoke of an incident with his son:

Alex (A): One thing that we're conscious of is that the middle child keeps reminding us that Aaron is overweight and is not doing anything and it's like if he keeps saying that, it's going to do something to his self esteem. And who are you to judge? Because we're trying to avoid that type of pressure. But I don't feel it's

appropriate for a sibling to be talking to another one in those terms. Because it's like, just because your metabolism is high or for whatever reason that you're in good shape. [There's] false attributing and no one else talks to you about that. It is derogatory. It's like, you know, get him off the couch; he's been there all morning or that's why he's fat. It's like we're trying to be very cognizant of that type of discussion in trying to – if you're going to say that to your sibling, then how long before you start saying it to other people?

Investigator: And what do you think that that does to Aaron? Or what is your worry that that will do to Aaron?

A: It may push him down more. Or it may lower his self esteem more and more. And I don't think it's beneficial.

For Alex his older son created more parental worry and interfered with the family working together. Consequently, Alex went on to say, “Sometimes dispositions get in the way. That they'll start out with good intentions and all of a sudden, it just turns into something that's ugly and then all of a sudden, they don't want to be with each other”. Julie's sons were upset when there wasn't enough food and blamed her daughter for eating too much:

They could say it in a nicer way. You know what I mean? They could so say it in a nicer way. Be mindful of what you eat. The first thing, she'll come home – I'm hungry. The first thing [my son will] say is, fuck - [you] can't eat up all the food and you don't need two sandwiches, just make one.

Joyce said, “It's always one huge argument”. She described how difficult the “chaos” in her house was and this detracted from her ability to have a “normal family”.

***Speed bump.*** The term, speed bump, was an *in vivo* code used by a participant to describe his experience during the health promoting process for his overweight child. During the process of making change there was continuous trial and error, give and take, re-grouping, re-trial, and so forth. The speed bump was a part of parenting and of establishing teamwork. Julie and Tom said:

Julie (J): We just treat it as a part of being a parent and being concerned. I mean, I think it's made us step back and go, okay, we can do this better which will in turn help us and help her. I think we just look at it as part of us.

Tom (T): Another speed bump, something to get over.

Sharyl and Joyce provided extreme cases of the speed bump or the trials of parenting.

Sharyl felt an added burden as a parent of an overweight child. Sharyl's futility was real.

She said, "It's all this work, but yet he still sort of the same. You know, he's still overweight". Joyce plainly described it as "overwhelming" and "stressful" but added that her daughter's behavior was more of a difficulty for her.

Most participants struggled to identify what the experience was like for them. They defined it in simplistic terms. Karen said it's "normal", "fun", and "natural" and part of just being a parent. Peggy described it as "normal parenting" and part of "being an involved and concerned parent". Anna felt, "It's not really that different. I just feel like I'm restricting him more than I am the others, but usually [the other kids] follow suit."

Having an overweight child required more consideration for some participants. Alex and Barb found "being a parent to Aaron is challenging". Kammie explained:

I think you – every child you have you sort of parent a little bit differently. Yeah. So I think her weight definitely is a definite factor of why I parent her differently. Maybe just more of a – for lack of a better word, like a nuisance.

For Kylie, she tried:

To remind [her]self that this is one of many issues and I try to keep it in perspective that no matter what I do, whether my kids were adopted or born to me, they're themselves. I mean I really believe kids come out who they are, and I think environment's important, but I think there's a huge natural drive. I mean certainly I'm nothing like my mother, so I think there's a huge natural drive for a kid depending on who they are, and you kind of have to embrace it and

just say well, that's who you are. So I try to be respectful of the fact that this is who she is.

***The whole package.*** Parents unanimously agreed that weight loss was not the impetus behind making change for their overweight child. Weight loss could provide a means to achieving a greater degree of health but ultimately parents strived for what Serena referred to as the “whole package”. The whole package was the harmony of optimal health and well being for their child. Parents provided multiple definitions of how they defined their child as healthy. Some parents tended to give concrete examples of what health meant to them. For example Alex said, “Aaron as healthy would be more lean, not as chunky, not as overweight, more active, regain how active he was, and just participate more in offerings”. Barb agreed with her husband. She said, “It would be probably a little less weight, maybe 10 pounds less; it would be having the energy and willingness to be able to be outside playing and wanting to play outside”. Mark wanted his daughter “to be very attractive. I want her to be very fit. I want her to be confident”. He went on to state that her health was more than about weight, “I think fit would be best. Not thin, but healthy”. Kammie provided a different definition of health than that of her husband. She explained that health for her daughter was:

Making good food choices as far as when you're eating, how much you're eating. That's the big ones with her, is when and how much. Because she really does choose healthy over junk. And being active, which she is. And just being comfortable with her body.

Kylie agreed that the health of her daughter was more than weight reduction. She said:

My ideal would be not so much the focus on weight as much because she's big boned. She's not going to fit the 5 foot 2, 110 pound government guidelines. She's going to be a solid buck twenty-five no matter what. That's fine. I'm all for that. If you are eating a balanced diet and you are getting exercise every day. So

that's what I'm looking to instill in my kids is, you need to be within the range, in your BMI, in your weight, of what is healthy. And as long as all of your blood tests and everything come out good and you're not at risk. As far as I know, none of them are at risk for familial hereditary diseases. If you're eating a balanced diet and everything, that's fine.

Kylie went on to say:

It's about being able to do what you want to do because you're healthy enough to do it, and about recognizing that you only get this one body and boy, you'd better take good care of it. I know they say they can replace your knees, but do you really want to go there? No.

Charlie initially provided concrete examples of what health would be for his daughter but further on put forth a global perspective. He said:

[I want my daughter] to be within her – whatever the medical boundaries are for her weight class for her body size and her age, that she is healthy, that her daily eating is – she's at least trying to come close to hitting the recommended allowances for all the different food groups and stuff that she's getting. That she's getting daily exercise, whether it's an hour of riding a bike or whatever....But you know, well all the way around. Everything has to be in terms of – fall under the healthy headline. And she – her health, that she's able to socialize and hang out and be able to communicate with kids her own age, with adults and also with kids younger than her. So I mean the healthy – I guess it's the whole makeup of her.

Sara felt healthy was about “eating healthier and exercise, which [her daughter] doesn't do too much of”. Joyce portrayed her daughter as healthy by “eat[ing] healthy meals, to take part in what I'm trying to get help for her, participate in it, give it a chance. I guess that's what I want for her”. As part of being healthy Joyce spoke of wanting her daughter to feel good about herself. She said:

I want her to feel good about herself. I don't want her to feel like she has to be a toothpick either, because that's all she sees on magazines and on TV. Beauty is this – skinny. And it's not. It's not. There's a lot of plus size models but you have to be down enough where you're healthy and feel good about it. I want her to feel good about

herself. I want her to look in the mirror and be like, oh, I'm a pretty girl. I'm a pretty little girl. I'm a good person. You know what I mean? That's how I want her to feel. I don't want her looking in the mirror being like absolutely like she's disgusting. And crying at night. And she feels horrible about herself.

With regard to describing health for their child, Tom and Julie said:

Julie (J): I wouldn't say, like, a pound wise, but her being able to run up the stairs and not be winded. Or to be able, you know, to go do things and not be winded. That's what's the hardest part for me with her right now. If she goes and exerts any energy what so ever, then she's winded.

Tom (T): Huffing and puffing.

J: Yea, and so to me that is not healthy and I'm not saying that I want to see her weigh 90 pounds. That's not to me, look at me, I'm not skinny by any means. But I just want her to be where she can do more and more activities and be able to breathe, as she should be able to breathe.

Other parents defined healthy for their child from a more a holistic stance. Serena said, "I think it's a whole package. A whole package. Emotional health. The physical health of just losing some weight and getting stronger and better about herself". Peggy felt that "happy is healthy". She went on to say:

I want her to feel comfortable in her body and who she is. I don't want her to be obsessive about her weight, but I want her to be healthy and I don't want her to have to been embarrassed by who she is or what she is and I think it comes down to making sure that she is happy deep down inside.

Within this definition Peggy added that healthy is "eating balanced [and] exercising outdoors".

All the parents shared a similar definition of health that included healthy eating and being active. It was in the pursuit of attaining or maintaining health that parents were making changes for their child. Despite weight loss being recognized as a source of promoting and/or achieving health this was not the primary goal of parents in this study.

#### **4.9 Beginning Theory: The Pathway to Making Change.**

Substantive theory that emerged from this study was The Pathway to Making Change illustrated in Figure 4.6. The qualitative approach to this study revealed a winding, complex path parents pursued to promote the health of their overweight or obese child. Theory was derived from the data and was comprised of the relationships of the core process concepts, core process linking concepts, and the contextual conditions that clustered from the data during analysis. The Pathway for Making Change represents a dynamic and fluid model founded upon the interaction between parent, child, and their lived world. This theory explains the process of how parents promote the health of their overweight child. Embedded and antecedent to The Pathway of Making Change are influential contextual conditions at a micro and macro level. The micro conditions of parenting style, beliefs, and upbringing and child attributes are interdependent with the higher level macro conditions of the school system, socio-cultural norms and values, stigma, community and environment, and economics. These multilevel contextual conditions provide the basis and structure from which the core process concepts are informed, influenced, and subsequently modified.

The discovery process from which the parents come to know and accept their child as overweight served as the catalyst initiating the pathway and the creation of a lead parent. The aggregate of awareness and knowledge of what life brings a child who is overweight both mentally and physically and its held meaning invariably created a tipping point whereby parental worry hailed the onset of making change to promote health for their child. These antecedents directly influenced the complicated contextually

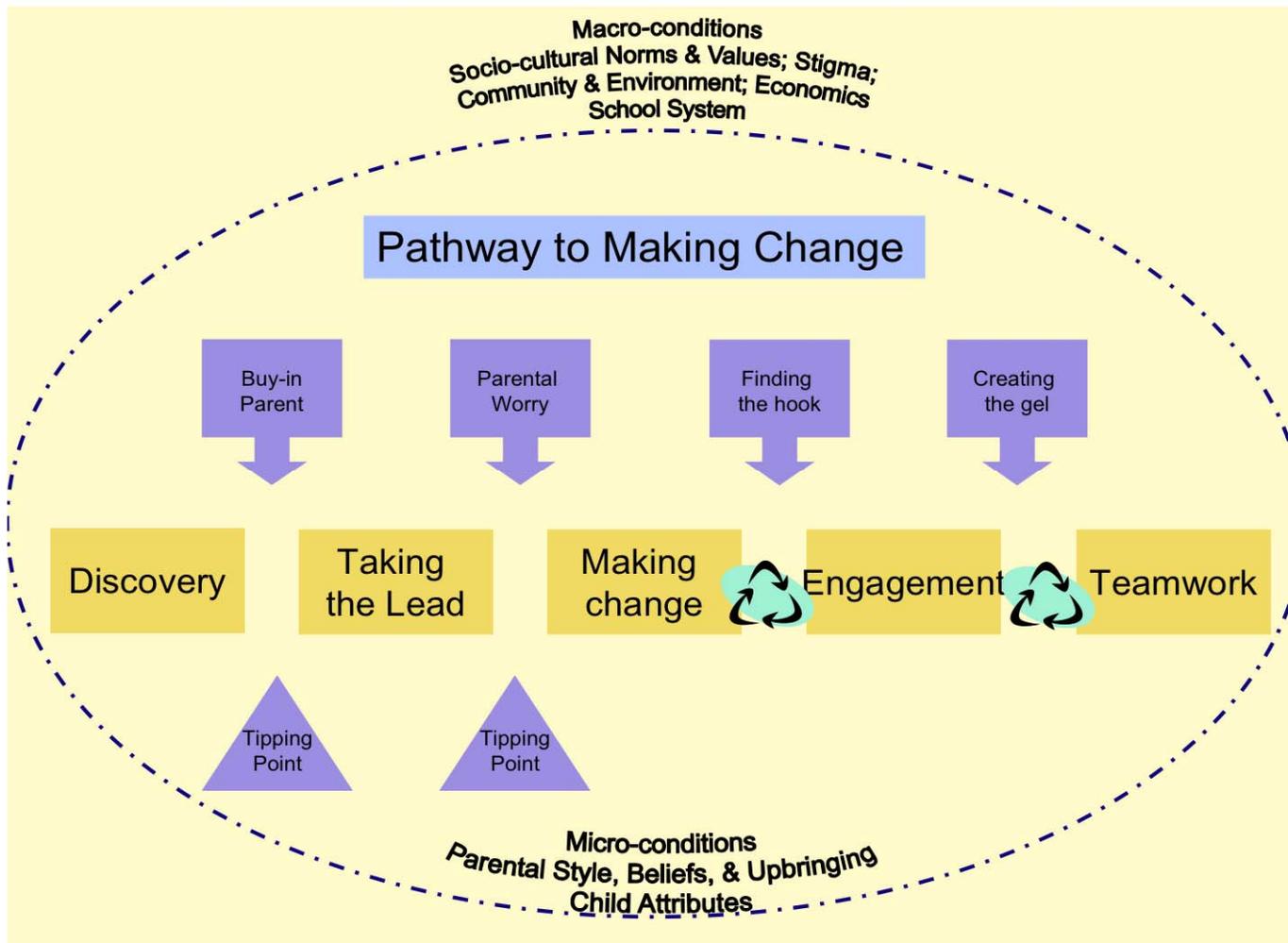


Figure 4.6. The conceptual model for The Pathway to Making Change.

driven dance of trial and error, give and take, and re-trial that characterized the parent's attempts at finding the hook to engage their child and create the gel to sustain change. Teamwork was the end product of achieving balance and consistency as parents strove toward common goals. Inherent within the processes of making change, engagement, and teamwork are the numerous perceived barriers that parents must either circumvent or overcome to be successful at promoting health and achieving the whole package of health for their overweight or obese child.

The participants in this study reached consensus that increased physical activity, health eating habits, and avoiding screen time were integral components to promoting health. This study suggests that implementing health promoting changes and instilling these behaviors as new habits while contemporaneously displacing ingrained undesirable habits is anything but straightforward and simple. The complexity of life co-mingled with the complexity of parenting an overweight child given the overarching contextual conditions reveals an arduous pathway for parents in their quest for making change and promoting health for their children. The following chapter will provide further elucidation of The Pathway to Making Change and its implications for the future.

# Chapter 5

## Discussion

The purpose of this study was to discover how parents promote the health of their overweight or obese child. Grounded theory enabled the investigator to identify and explore how parents came to know their child was overweight, how they proceeded to make changes to promote the health of their child given this awareness, what strategies they attempted, the many barriers parents faced during this process, and how they attempted to solidify and sustain healthy changes. The meticulous nature inherent within the constant comparative analysis of grounded theory led to the inductive process of substantive theory construction revealing The Pathway to Making Change. This theoretical model explained how parents attempted to create and sustain healthy behaviors for their children within the context of their lived world. The theory is dependent on the many influential contextual conditions at both the micro and macro levels that provided the infrastructure and set the undertones of the process for both parent and child. Through extensive data collection and analysis the investigator identified the basic social process as that of making change.

Imperative and antecedent to the basic social process of making change was the concept of discovery. The discovery process was unique to each participant and was directly affected by its' sub-categories, *predisposition*, *husky build*, *turning point*, *compared to others*, and *the healthcare provider*. Although the degree of influence that each sub-category carried varied for each participant, all sub-categories were integral to the overall discovery process. For example, the healthcare provider played the strongest

role in the discovery process for Sharyl and to a lesser extent for Tom and Julie. Yet, the husky build was more influential for Karen than for Sharyl in the discovery process.

Once the parent was able to buy-in and accepted that his or her child was overweight or obese momentum along The Pathway of Making Change was initiated. For some this was a gradual process while for other parents it was a sudden awakening. Regardless of the evolution toward parental buy-in, participants reached a tipping point whereby they felt it necessary to take action and make health promotion a priority for their child.

Following the realization by parents that their child was overweight or obese came an awareness of what this label meant to them and for their children. The core process concept of taking the lead stemmed from the assimilation of its two sub-categories of *mom's the boss* and *parental angst*. The role of socio-cultural norms and values heavily influenced this core process concept. Although both mothers and fathers exhibited a sense of blame, guilt, or sadness about their child's weight, the lead parent was consistently the mother. Both the child and the child's father looked to the mother for advice, guidance, support, and direction. Importantly, the negative connotation of being overweight or obese brought with it a tremendous amount of worry for the child's health and well-being. As this worry escalated parents reached a tipping point that marked the onset of making change toward health promotion. Many parents felt forced into taking action based on their worry concerning the threatened health of their child, and the stigma associated with fatness.

Making change was identified as the basic social process in the theoretical model, The Pathway to Making Change. Parents used multiple strategies and faced numerous barriers as they attempted to make healthy changes for their child. The strategies parents

used were identified in the following sub-categories, the *food police*, *active bodies*, *role modeling*, and *hitting the media maximum*. The ultimate goal of these strategies was to instill healthier habits in terms of promoting healthy eating and eating habits, encouraging physical activity, leading by example, and displacing sedentary activities. In their attempts to create healthier habits, parents faced a variety of obstacles. The sub-categories of *competing demands*, *come to me*, *food intimacy*, and *shuts me down* described the parental barriers and how they determined subsequent action, if any.

The strategies that parents used were aimed at the process linking concept of finding the hook to engage their child in the change process. Finding the hook was requisite to engagement and successful change as parents were limited by their children's willingness to accept or participate in such changes. Parents could only go so far in the making change process. This was a re-iterative process that was strongly influenced by the sub-categories of *motivating force*, *influential peers*, and *social and fun*. Children who felt healthy habits were fun, provided a social outlet aligned with their peers, or held meaningful personal value were more likely to be engaged by their parents. The contrary left parents struggling to find new means of engagement.

The Pathway to Making Change is neither linear nor static. There was an investment of time and energy by the parent coupled with an uncertainty about what the future would bring should they fail to address their child's overweight or obesity. This worry and fear permeated the process of change. There was dynamic structuring and restructuring as the pathway proceeded toward the creation of teamwork and sustaining change. Although, the core process concept of teamwork marks the end of The Pathway to Making Change the process itself remains infinite. As the child ages and matures the

parent-child dyad must accommodate for these changes thereby highlighting the perpetual recycling process between engagement and teamwork. These processes were unique and integral to the parent and the parent-child dyad. Teamwork was characterized by *balance and consistency, a united front, supportive others*, and a mutual goal of a healthy child, *the whole package*. Many parents met with a *speed bump* that required them to renegotiate the process and not all parents reached the level of teamwork. The investigator identified a sub-category of the *anti-team* that presented itself as a direct and significant barrier to successful team development and functioning. The process of creating the team required a degree of balance and negotiation that was purely dependent upon whomsoever entered into the fold.

### **5.1 Summary.**

The search for how to best create behavior change is elusory. Many theories and models exist that attempt to explain and/or predict the human response and the elements that sway one toward taking action and maintaining healthy lifestyles. The Pathway to Making Change adds to the growing body of behavior change theories in several ways. It is the only theoretical model that postulates the process of change for children and their parents. Importantly, The Pathway to Making Change demonstrates a duality of creating healthier habits by parents for children. It acknowledges that parents are limited in their ability to create change for their child given the dependent relationship. A working relationship or team with their child is vital to successful change and must adapt to the ebb and flow of the lived world and the maturation of the child and child-parent relationship. The model accentuates the role of the lived world that current behavior change models acknowledge but deemphasize.

The Pathway to Making Change illuminates the dichotomous goals of the parent and child. Parents aim to promote health for their children while children aim to gain something of personal value, be it tangible or intangible. Despite the means to achieve the ends, parents and children negotiated and renegotiated to achieve their ultimate goals. Unexpectedly, the development of healthier habits for the child was found but consequently there was a value added element creating healthier habits for the child, parent, and family. The end result of a healthier parent, child, and family has far reaching consequences for our global health.

The primary driver in The Pathway to Making Change is the core process linking concept of *parental worry*. Once parents achieved a level of worry they felt obligated or pressured to address the overweight or obesity of their child. The majority of parents were unaware of the immediacy of obesity related consequences and the current health threat they posed. Parental awareness of the long term consequences was clearly identified. The identification of a primary motivating force for promoting health offers HCPs new insight into how to provide the impetus to motivate parents of children who are overweight or obese.

Not yet seen in the literature is the core process concept sub-category of *turning point* and *food intimacy*. Save one, each parent detailed a critical time of stress for his or her child marking the onset of weight gain. Child development is itself a change process. During the maturation process biological and psychological changes occur that strongly influence who the child will become. This study suggests there may be a vulnerable time during a child's development that creates and habituates an intimate relationship with food. Children begin to learn to use food for comfort, joy, and/or solace. The intimacy

that forms between child and food was deep and powerful. Resistance was met and behavior escalated as parents attempted to alter or break the child-food relationship demonstrating a new form of disordered eating in a vulnerable population during a critical time of stress.

This chapter will present this study's findings in relation to the current state of the literature. The discovery process will be further elucidated. Relevant theories from the fields of psychology, sociology, nursing, and business will be discussed to examine how The Pathway to Making Change "fits" within current theoretical models and frameworks. Lastly, the potential implications for practice, education, policy, and research will be presented.

## **5.2 Parental Awareness & Beliefs.**

The findings from this study suggest that the parental belief of their child as overweight or obese is dependent upon many cognitive and contextual indicators. Achieving this awareness and belief was unique and individualistic for each parent. Parents used many strategies consciously and subconsciously during the discovery process as they came to know their child was overweight. Overweight awareness was an evolutionary process of increased and heightened awareness that would occur slowly and gradually over years or suddenly whereby the parent is informed that their child is overweight or obese.

Parents identified several aspects integral to the discovery process with no single sub-category defining the discovery process as a whole. Although the precondition of body shape or "huskiness" was symbolic for overweight or obese, parents did not rely on visual cues of weight status as sole confirmation. Eckstein et al. (2006) and Parry,

Netuveli, Parry, and Saxena (2008) supported these findings in their study which found the majority of parents were unaware their child was overweight based on body shape alone. Parents described name calling, unable to physically keep up with their peers, and social stigma as indicators of their child being overweight or obese. Similarly, this study discovered like indicators but found name-calling, failure to keep up with peers, and stigma provided the impetus to take the lead. The variation of this study's findings from that of the literature supports the co-mingling and merging of the core processes and their linkages as continuous dynamic processes rather than discrete stages of change.

There appeared to be a strong influence of the child's health care provider in terms of confirming the weight status of the child. Regardless of the positive or negative interaction between parent-HCP or parent-child-HCP, the HCP played an integral role in the discovery process. For many of the parents this provided the tipping point. Acknowledgement or verification by the HCP that their child was overweight or obese signaled the completion of the discovery process and hailed the parental buy-in. This highlights the importance of the role the HCP plays in addressing child overweight and obesity with parents in the clinical setting. Dietz and Robinson (2005) cautioned HCPs in that their prescribed interventions may cause undo harm. The findings in this study add further cautionary advice. It appears the quality of the relationship the HCP has with the parent and child and the manner in which this discussion may ensue could ultimately determine the degree of harm posed to the affected individuals.

During the discovery process parents frequently compared their child with others in size, habits, likes, and other attributes. *Comparing to others* itself is a subcategory integral to the discovery process for parents. The perception that their child was larger or

“husky” and on occasion ridiculed or stigmatized created parental worry and prompted forward movement on The Pathway to Making Change. The increasing prevalence of obesity in both children (Lobstein & Jackson, 2007) and adults (Riebe et al., 2004) brings a concern that the homogeneity of an obese society will prevent parents from detecting or discovering their child is truly overweight or obese (Rose, 1985). Parents in this study used a comparative method to judge their child. With this knowledge comes increasing concern. Given the growing problem of child overweight and obesity, parents may be unable to effectively utilize this strategy and identify potential risk for their child. The normalization of the larger body shape may in effect impede the discovery process that is necessary for and antecedent to making change.

This study postulates the role of life stress as a contributor or turning point to weight gain. Nearly all parents reflected upon a stressful period of time whereby their child’s weight gain commenced and progressed. The role of psychosocial stress as a turning point for weight gain in children has not been described in the literature to date. One can hypothesize that this was a period of time characterized by heightened child stress, greater child susceptibility, less parental consistency, and less parental attention to the habits of their child. The cumulative effect resulted in weight gain and maladaptive eating patterns for these children. Aspects of this hypothesis are demonstrated in the adult literature. The role of stress and increased stress hormone production has been shown to effect weight gain in adults (Bornstein, Schuppenies, Wong, & Licinio, 2006). Epel, Lapidus, McEwen, and Brownell (2001) found menopausal women who reacted highly to stress ate significantly more sweet foods, ate greater amounts, and ate more frequently, suggesting that certain individuals are more susceptible to the effect of stress

and eating. The effect of stress to altered eating habits in adolescents was demonstrated by Cartwright et al. (2003). The findings supported a link between stress and changing dietary habits such as greater fatty food intake, less fruit and vegetable intake, more snacking, and more skipped meals. The investigator theorizes that such maladaptive behaviors of eating, and the desire for energy dense non-nutritious foods become assimilated by the child and become adaptive coping strategies for the future.

With the exception of two, all children met the clinical definition for obese, yet most parents did not identify their child as such. This study illuminates the complexity associated with the parental discovery process and the many factors involved in this process. It was evident that while no parent wished their child was overweight or obese, they had difficulty accepting and/or recognizing this in their children. Parents reported feeling guilt, blame, and embarrassment associated with their child's weight. They truly empathized with their children's plight and all the hardships that accompanied being overweight. The lack of the willingness by parents to accept the diagnosis of obesity for their child may reflect the pervasive level of distress and stigma associated with labeling their child as overweight or obese.

The discovery process is far from straight forward. Parental disbelief, "She's not obese", or rationalizing, "Maybe kids are big these days", may slow the parent from ultimate discovery. However, there is a resurfacing of the contextual elements such as the child's body shape, the thinness of others, and buying or making clothing which perpetuates and heightens awareness of the child's weight. A visit to the HCP appeared to complete this process more expeditiously. Parents achieved realization of their child as overweight or obese as awareness increased and evidence mounted. Ultimately, this

tipped the parent into buying in, and believing (or reluctantly believing) their child was overweight.

### **5.3 Food Intimacy.**

Parents in this study vividly identified and detailed an intimate relationship between their child and food. Children were described as finding comfort in food, sneaking food, acting out to obtain food, and/or simply loving food. For these children, food and its held meaning transformed the parent-child dyad into a child-parent-food triad. As parents attempted to make change and act in the role of the food police, the children met them with resistance, persistence, and in some instances clandestine eating behaviors. When the parents altered this relationship and access to desirable food was diminished or removed, the affected children reacted as if this was a threat. Based upon this evaluation the children created new behaviors to counter this threat. Such a reaction can be interpreted through the lens of psychological reactivity, defined as a heightened emotional reaction when specific behavioral freedoms are threatened or eliminated (Brehm & Brehm, 1981). The Theory of Psychological Reactance (Brehm & Brehm) assumes there are “free behaviors”. Free behaviors are the freedom to act or engage in any given behavior that is real, desirable, and available. The level of reactivity by an individual is directly related to the degree of importance said behavior holds should it be removed or eliminated. The more meaningful the behavior is to an individual the greater the level of reactivity when it is threatened. The majority of participant’s children were strongly enmeshed with food. Those children who demonstrated greater food attachment or intimacy posed greater behavioral challenges as change was instigated. The resulting

confrontation and frustration detracted from the ability to create teamwork for both parent and child.

Participants reported their child seeking solace in food at an early age. This study suggests comfort eating is a learned and possibly reinforced behavior by parents. The context and meaning of eating and food choice appeared to be rooted in subconscious associations with previous situations of stress, distress, and heightened emotions. Although the phenomena of comfort eating has been described in the adult obesity literature (Grant, 2008), it is absent in the pediatric literature. Intuitively, the development of comfort eating does not occur instantaneously. It is a process that requires interactions, experiences, and the influence of others as it develops. The young age from which comfort eating appears to begin raises concerns for the indoctrination and perpetuation of such behaviors as the child ages. Expansion of the theoretical view of the Social Learning Theory by Bandura (Bandura, 1977; Crain, 2005; Stone, 1996) describes how children cognitively process their social experiences and how this interpretation of experience influences future behavior and development within one's culture. Environment and culture shapes the personality and development of individuals. Through cognitive processes one develops the contextual world of self that guides behaviors. Behaviors are tempered and regulated by perceived benefit. An important construct of self regulation was particularly relevant to the phenomena of comfort eating and reflects the essential role of psychosocial variables in Social Learning Theory (Bandura, 1977). Self-regulation is an internal decisional balance whereby the rewards or punishments of a particular behavior are weighed. Individuals possess forethought that assists in regulating behaviors. For participant's children the reward of feeling better

from eating enticing food is significant. Food for solace is a complex process reflecting developmental level, culture, values, and societal norms (Isom, 1998). This study suggests that food is a powerful motivator that drives child behaviors and appeases the emotional state. The learned behavior associating food with comfort becomes acclimated, perpetuated as a behavioral norm, and the determinant of future behaviors.

#### **5.4 Behavior Change.**

Change is a process, variation, or alteration whereby there is a passing from one state, form, or matter to another (The Collaborative International Dictionary of English v.0.48, 2006). The process, variation, or alteration can be acted upon to create a new state, form, or matter which creates a new, similar, or related product (Dictionary.com, 2006). Alterations of each state, form, or matter can be partial, complete, transformational, substitutive, converting, relational, and/or reciprocal, independent or dependent upon such processes demonstrating the lack of linearity and chaotic complexity (Wordnet 2.0, 2006). Within the process of change there is a defining point of awareness, an insecurity and/or dissatisfaction within the *status quo* that occurs prior to the initiation and process of change. One must be able to visualize the future and accept a sense of unknowing of what that future may bring (Chapman, n.d.). Energy must be invested and mobilized; thereby, demonstrating commitment to change. Often there is a sense of unease, discomfort, struggle, and conflict between the past, the present, and the future, requiring a dynamic reorientation (Apter, 1999; Stobie, 2002). A willing openness to self and others must be present to allow for adaptation, direction, purpose, and guidance. This process may be discontinuous, linear, non-linear, and/or chaotic at times. It can be conscious or unconscious and embraced and/or resisted.

The Pathway for Making Change presents itself as a behavior change theory that explains how parents promote the health of their overweight or obese child. The overarching contextual factors elucidated in this study drive the actions and interactions between parent and child. Contrary to current behavior change theory, The Pathway for Making Change relies on the parent-child dyad. It is not the single individual responsible for making change. The Pathway for Making Change represents a theory for change that incorporates the ebb and flow between two separate individuals. It demonstrates two parallel processes that reflect the wants, needs, and desires of both parent and child. Importantly, the wants of the parent and child may not be congruent and, in some cases, can be quite conflicting. This theory expands current behavior change theory by identifying the need for child engagement and family teamwork as core processes to achieve optimal behavior change and the need for negotiation and reconciliation of behalf of both parties to adequately do so.

The role of the supportive network is evident in many of the current behavior change theories. The Transtheoretical Model for Behavior Change (Prochaska & Velicer, 1997) describes the ancillary role of “helping relationships” during the action stage of change. Action is defined as the overt behavioral modifications that have been made by an individual to promote health. Similarly, the Theory of Reasoned Action (Fishbein & Ajzen, 2010) considers the influence of others in terms of subjective norms as defined by “opinions of referent others”. Both theories consider the involvement of others as influential yet, purely subordinate as a contextual role. Meaning, the favorable behavior by the individual is more likely to occur with the trusted, valued support of other referents, but is not dependent upon this relationship. Extrapolation to the pediatric

literature is limited since children by nature are reliant on a parent or caregiver for support and guidance for success in life.

The Pathway for Making Change explains how parents promote health for their overweight or obese child from a reactionary perspective. All participants in this study had children who were clinically obese, save two who were clinically overweight. Parents were clearly aware of the physical and emotional health related concerns related to a life of obesity. Under these conditions behavior change emanated from perceived threats to their child's health and well-being. The onset to making change occurred based on a value judgment by the parent. Once aware of their child's overweight or obesity, they considered their child at risk. The findings in this study suggest parental weight concerns and worries compelled them to give health promotion priority status. These findings are congruent with constructs in the Health Belief Model (Rosenstock, 1974). One of the central constructs of the Health Belief Model is the idea of perceived susceptibility and perceived seriousness of a problem. Individuals who perceive themselves at risk and perceive the consequence of such risk as increasingly severe have greater self-efficacy toward undertaking appropriate action. Individuals are motivated by risk avoidance and perceived benefits balanced against perceived barriers. Parents in this study identified a perceived threat to their child's health and well-being causing them to act in avoidance of such threats.

The hallmark of early movement along The Pathway for Making Change was related to the tipping point. The tipping point is a sociological term used by Gladwell (2000) that signifies "the moment of critical mass, the threshold, or the boiling point" (Walsh, 2007, p. 1) when "the momentum for change becomes unstoppable" (Gladwell,

2000, p. 12). In his book, Gladwell explained how relatively small changes could suddenly have large effects. In this study parents use many strategies as they discovered their child was overweight. A point was reached which was unique to each parent whereby they made a conscious decision to take the lead and make changes for their child. For example, Barb and Sara described a tipping point when they heard the actual weight of their child. Yet, they described “love handles”, incidences of being made fun of, and compared their overweight child to that of his or her “skinny” siblings and classmates. There was an “Aha” moment, defined as the tipping point. One small incident marked by heightened parental recognition and worry thrust the parent toward making change and subsequently toward health promotion.

The concept of the tipping point shares similarities to the construct of decisional balance found in the Transtheoretical Model of Behavior Change. The decisional balance purports two measures that are associated with the decision-making process, the pros and cons. The combination of the two constructs forms a “balance sheet” of perceived gains and losses for the individual at any given stage of change (Prochaska & Velicer, 1997). The deliberate nature of the decisional balance delimits the frequent, random, and chaotic nature that propagates human behavior. The tipping point broadens the concept of decisional balance by acknowledging the conscious decision making process in behavior change while giving merit to the confusing, haphazard methods that can determine our actions. Furthermore, the tipping point acknowledges that parental action toward change as a result of the decision-making processes can be spontaneous and sublime.

The core premise behind much of the behavior change literature is the concept of self efficacy or the individual’s belief in their ability to implement certain behaviors in

attainment of a desired goal (Bandura, 1977). The Health Belief Model (Rosenstock, 1974), the Transtheoretical Model of Behavior Change (Prochaska & Velicer, 1997), the Theory of Health Promotion (Pender, 1996), and the Theory of Reasoned Action (Fishbein & Ajzen, 2010) position self efficacy within their theoretical models as an antecedent and absolute construct to behavior change. In this study parents used multiple behavioral and cognitive strategies to implement changes toward healthier habits and to aid their child in adopting healthier behaviors. Strategies that were either ineffective or met with great resistance by the child were discarded until the parent found what “worked” for his or her child. The strategies parents used were contextually driven and contingent upon the response of the child. Because of the dependent nature of making change for a child or assisting the child in making change, the concept of self-efficacy as a central tenet was decentralized and deminished as the determinant of change. For example, it was evident to the investigator that Serena’s self efficacy was low. She did not feel confident that she could create or sustain change. Yet, Serena did exhibit strong and willful self determination. It was Serena’s self determination and her willingness to engage, negotiate, and partner with her grandchild that enhanced successful change. This postulate offers new insight, consideration, and implications for a dependent dyadic change theory such as The Pathway to Making Change.

The findings of this study suggest parental role modeling is influential in making healthful changes for the child. Parents modeled behaviors they wanted their children to adopt by eating healthier, being active, and making healthy choices. The idea of lead by example has roots within Social Learning Theory. Social Learning Theory posits that humans learn through observation. The behavior response is a consequence of the

perceived outcome. Consequently, individuals will model behaviors observed in others with whom they identify (Bandura, 1977; Crain, 2005; Stone, 1996). The central tenets identify methods in which behavior can be modified or changed (Bandura, 1977; Stone, 1996). When parents model desired behaviors the child cognitively processes his/her social experiences and interprets the experience. Future child behaviors then follow that of whom they identify. Parents who were actively modeling healthy eating and physical activity helped their child do the same. Such behaviors by parents gave merit and validity as they encouraged and instituted healthy changes for the child. The togetherness of being active and making healthy choices provided for more fun and greater engagement by the child. Notably, the changes that parents made inadvertently promoted their own health and the health of their family.

### **5.5 Motivation.**

Participants in the study emphasized the importance of their child partnering with them to create successful and sustainable change. Throughout The Pathway for Making Change there was a duality between parent and child. Despite parents being motivated to promote the health of their child, change was limited. Parents were pressed to contemporaneously seek methods to motivate and engage their child to accept and to participate in such behavior changes. Parents spoke of the necessity of the child buy-in for healthy changes and habits. The buy-in was value laden for both parent and child. For parents the buy-in was simply optimal health and well being for their child. Yet, for children the buy-in meant something altogether different. The behavioral changes proposed by parents were tailored to the likes of the child and/or were required to provide some type of personal value, gain, or incentive for the child (i.e. fitting into the bikini,

getting the cell phone, increased fun). Originally found in the field of economics and contract negotiation, Incentive Theory posits the environment creates the behavior (Laffont & Tirole, 1988) and individuals have the capability of allocating their time and energy in many different areas of choice (Drago & Garvey, 1998). Using incentive based strategies one can enhance the motivation of mutually desired goals. Participants used strategies such as reward systems, bribery, and being active together in order to engage their child in desired behaviors. Incentives can be tangible (cell phone), intangible (having fun), and may be exchanged one for the other. For example, Julie and Tom gave their child a cell phone (tangible) in return for participating in a weight loss program (intangible). The incentive of the cell phone was the *hook* for the child and created movement toward change that would not have occurred otherwise. Importantly, Incentive Theory holds that an individual is free to quit at any given time in search of other incentives. This emphasizes the need for ongoing re-evaluation and negotiation between parties and parallels the recycling concept finding the hook for behavior change and creating the gel for a cohesive team approach to healthier behaviors.

## **5.6 Team Building & Teamwork.**

Similar to the engagement process, the overarching context of parenting styles, parent-child interpersonal attributes, developmental level, and child preferences are essential underpinnings that either allowed, hampered, or prevented the formation of the parent(s)-child team. Unlike the team model in business, members of the parent-child team are not chosen. The parent-child dyad has innate attributes that present its own unique strengths and weaknesses. Importantly, additional innate characteristics such as

preconceptions, trust, and hierarchy have been pre-formed and assimilated by both parent and child over the years as a family.

In this study a “working relationship” evolved between the parent and child and marked the onset of early team building. During this time the parent-child team oriented themselves to the instigation of new healthful changes. Both parent and child would “test the waters” to see what worked, what did not, and discover one another’s reaction to such changes. Early team building in this study reflects the Forming stage of group or team development described by Tuckman (1964, 1965). In this stage members become oriented to the task and goal before them. The co-mingling and enmeshment of attributes required to create optimal teamwork was in a constant state of flux and variability and directly dependent upon external (school, social activities, family members) and internal (motivation, priority) environments for both the parent and child. Finding the balance was an ongoing family-team struggle requiring a “give and take” on behalf of the parent, child, and family. This time for the parent-child or family-child team draws similarities to the Norming stage of team building. During the Norming stage team energy is directed toward the identified goal whereby solutions can emerge and continue on to the Performing stage of active change. At this time the parent-child or family-child team performs holistically as a unit (Tuckman, 1965). Supportive elements that led to a cohesive team were the identification of the team leader (the go-to parent), ability to partner, similar united goals, supportive environment, joint activities, balance of control, appropriate boundaries, and feeling that needs are met. These concepts “in balance” created healthful and sustainable change. Prebble and Federick (2009) contend that these features distinguish successful teams from less successful teams and other groups.

Not all participants described the ability to create teamwork. However, these participants identified attributes they were working toward which would allow them to partner with the child. Many threats or barriers along The Pathway to Making Change were identified. Some were perceived as normal "speed bumps" of parenting. Threats to the team consisted of derisive actions, manipulative behaviors, meddling of others, and food intimacy. When threats or barriers were judged as insurmountable, small battles, or did not justify the means to an end parental attempts to overcome them were abandoned. The recycling that occurred in The Pathway to Making Change acknowledges the complex intricacies inherent in the working relationship and the reconciliation process antecedent to and inherent within teamwork.

The successes of team efforts were met with excitement and enjoyment by both parent(s) and child. This positive reiteration lent itself to the provision of additional support in future endeavors, strengthened team cohesiveness, and led to sustainable healthy behavior change.

### **5.7 Implications for Advanced Nursing Practice.**

The HCP in the primary care setting has a unique and valuable position to address the complex health issue of obesity. The findings of this study provide HCPs with a better understanding of how parents come to know their child is overweight or obese and their decision making process as they promote the health of their child. The data provided from these participants illuminates the role the HCP plays in the discovery process. HCP are instrumental in identifying the child as overweight or obese and discussing both the immediate and future implications related to weight related co-morbidities. Through the HCP's objective knowledge of cognitive development, nutritional and physical needs,

and the subjective knowledge of family dynamics and overarching contextual conditions, the HCP can create new awareness for the parent and of the current health concerns related to risky weight status. Helping parents understand the immediacy of their child's weight related health problems might provide the impetus to take the lead and sway the parent into making more significant changes earlier. In this study healthcare providers perceived as blunt, accusatory, and/or insulting alienated the family from future dialogue and assistance. Using an empathetic approach to parents of overweight or obese children will allow for the discovery process to occur but will form a partnership over the long term and allow for optimal care for the parent-child dyad and/or family unit.

Many participants spoke of wanting the child to come to them signaling a readiness by the child to address his or her overweight or obesity. Pushing weight control measures created parental fears for eating disorders. Assurances by knowledgeable HCPs that addressing the child's weight is unlikely to create eating disorders such as bulimia or anorexia nervosa or diminish the self-esteem need to be given. Parents liberated by this knowledge might be more likely to make meaningful changes that promote health and appropriate weight loss. Additionally, waiting for the child to come to them may be developmentally unrealistic and create delays in the making change process.

This study elucidates the true struggle parents encounter as they attempt to make healthful changes for their child. Prescribed measures by HCPs of eating less and exercising more belittles the complexity associated with parenting an overweight or obese child given the obesogenic environment. Teaching parents strategies to actively motivate, coach, and mentor their child could foster a teamwork approach to health promotion for the parent-child dyad and the family as a whole. Teaching parents how to

act as health coaches and mentors creates a model of leading by example that, in turn, makes all participants healthier in the process. Educating parents on useful strategies refocuses attention to the parent-child lived world, offers supportive, useful approaches and problem solving, and forgoes the paternalistic approach common to many healthcare encounters.

### **5.8 Implications for Education.**

These research findings have important implications for nursing education and other health related disciplines. Advance practice nurses are increasingly looked to as health coaches by patients, families, communities, insurers, and allied health professionals. To fully meet this expectation education must adequately prepare its future providers for this role. Just as parents need to be educated in the role of team coach and mentor, future healthcare providers will need to learn similar strategies so that they may provide this knowledge to the children, parents, and families for whom they care for. Techniques and strategies that emphasize process will provide health care professionals the knowledge and skill to work with the parent-child dyad. Importantly, educators should strive to assist healthcare practitioners in becoming aware of the values, biases, and stigma that impede care.

The Pathway to Making Change supports the need for educators to teach team-building strategies to their students. Successful team building models found in the field of business can be applied to working with families. Attributes such the team leader, balance, consistency, clear expectations, mutual participation, and united goals are inherent to successful teams and lead to the creation of optimal teamwork. Awareness of these attributes and their complementary effects allows the student new insight into how

to approach families in need and coach parents as they pursue healthy changes for the child.

### **5.9 Implications for Policy Development.**

The success of obesity prevention and treatment require a long term, broad commitment to behavior change across all societal levels. Public health efforts must focus on saturating families, communities, schools, employers, and government with content and messages geared toward proactive healthy behaviors. Children look to their parents, educators, and other influential individuals as role models. The Pathway to Making Change suggests that individuals held in high esteem by children influence their future behaviors. Public campaigns that promote “leading by example” or “walking the talk” will not only promote and model healthy behaviors to our children but also create a healthier society as a whole.

More difficult is the need to reframe the meaning of food in our society. From an early age children learn that food is social, food provides comfort, food is love, and food is a reward. Program development and educational efforts need to assist parents in learning how to alter the context of food as a rewarding activity or a source for comfort. The sustenance that food provides will be forever part of our lives. One must eat to live. Teaching our children that food can be enjoyed yet not provide enjoyment, comfort, or solace will require an extensive multi-faceted public policy approach. Such a reorientation of our food culture will have far reaching consequences for the physical and emotional well being of the nation’s newest at-risk population.

Third party reimbursement for weight related counseling and treatment in the primary care setting is sub par at best and, in several instances, nonexistent. Financial

hardship and increasing patient care time demands add additional burdens to the primary care setting. Macro-level barriers such as these prevent healthcare providers from taking the time required to address child weight status, identify current threats to the health of the child, consider the contextual elements, and adequately assist the parent and child on how to address their unique needs in a fifteen minute office appointment. Furthermore, many healthcare providers are unaware of how to approach these families and what advice to offer (vanGerwen, Franc, Rosman, Vaillant, & Pelletier-Fleury, 2008). The simple recommendations of eat less and exercise more has not panned out for healthcare providers or patients. Re-allocation of funds is necessary to educate healthcare providers on how to help the special needs of parents and overweight or obese children and provide the infrastructure and financial support to do so in the present and for the long term.

### **5.10 Implications for Future Research.**

This study provides a new approach to understanding how parents come to know their child is overweight and the subsequent pathway that leads them to create healthy changes for their child. Implicit within The Pathway to Making Change is the decentralization of weight loss as a parental goal and the emphasis on achieving optimal health for their child. There are bountiful behavior change models in the literature yet none that explain behavior change between the dependent child and his or her parent. The Pathway to Making Change provides a novel contribution to the current theories of behavior change. As with any new contribution to the existing body of science, knowledge is gained while concurrently posing further avenues of inquiry.

The Pathway to Making Change reveals how parents come to know their child is overweight or obese. Parental awareness and belief are heavily reliant on the advice of

the healthcare provider for belief and validation. The method in which the HCP delivers and discusses this emotionally laden diagnosis with a parent remains unclear.

Participant's preference varied. One parent found the direct, blunt approach desirable while others found this as accusatory, demeaning, and casting blame. Other parents preferred advice to be in terms of healthy behaviors and avoid labeling terms such as overweight and obese. Parents had mixed feelings about the child being present during this encounter. Further investigation into how to approach and engage parents and/or the child in weight related discussions is warranted. Such findings will provide and enhance the working relationship for such a complicated stigmatized health issue and avoid alienating parents and their child.

The majority of participants in this study were mothers. Replication of this study with fathers would offer new insight into the role of the father in promoting the health of their overweight or obese child. If mothers are truly the lead parent and fathers provide a supportive role as this study suggests, future interventions should emphasize supporting the respective parental roles and providing guidance for strengthening the complementary roles each plays within the family team.

Every year more and more grandparents are becoming primary caregivers to their grandchildren. The most recent statistics available from the U.S. Census Bureau estimate that 2.4 million grandparents are responsible for the custodial care of their grandchildren (U.S. Census Bureau, 2003). This national shift crosses geographical regions and is unrelated to race or ethnicity. One grandmother was interviewed in this study. Although she fulfilled the role of parent to her granddaughter, she described significant macro-level barriers to creating change for her. As more and more grandparents are raising their

grandchildren further investigation into the special needs of this population will be necessary and vital.

Future research needs to investigate the relationship between critical periods of household or family stress, weight gain, and eating and activity patterns. This study suggests that parents identified a key psychosocial turning point that marked the onset of child weight gain not demonstrated in the literature to date. Are children more susceptible to weight gain during times of family stress? Is the weight gained simply that parental attentions are directed elsewhere? What are the psychosocial factors during this time in relation to eating habits and activity patterns? Is there a subset of children that are more at risk for weight gain during psychosocial stress? How are children that gain weight under stress different from other children who do not gain weight under similar stress? The relationship between psychosocial stress and child weight gain in pre-adolescents has far reaching implications given that puberty alone is associated with weight gain (Dietz, 1994).

This study is presented through the lens of the parents. Participants in this study felt their children were aware they were overweight. Based on these findings future research should examine the “other half” of the parent-child dyad. Inquiry into what it is like for children who are overweight, what strategies and barriers they face as they attempt to lose weight and/or “get healthy”, and how parents and others can better support them is necessary. Further exploration into how children feel their weight affects their self-esteem, body image, and attitudes toward food and eating would either lend support or negate parental worries over creating further harm should they institute stricter

measures for weight loss. Such knowledge would complement the findings presented here and provide invaluable information for HCPs and parents, alike.

Broadening the scope of this study to include various ethnic populations and children of different ages would further refine The Pathway to Making Change. The participants in this study were all Caucasian and geographically limited to the Northeast. This may have resulted in a myopic view of behavior change specific to this population and region. Future studies to further define and refine sub-categories, core process concepts, relationships, and their propositions in a more heterogeneous geographically diverse population will be necessary to increase the theoretical transferability.

The Pathway for Making Change presents itself as a middle range nursing theory for behavior change. As with any new theory it requires testing. Concepts, key propositions, and their interrelationships will need to be operationalized to allow for adequate theory testing. Melies (2007) acknowledges the cyclical, dynamic, ongoing process involved in theory development and evaluation. It is through formal evaluative methods that The Pathway for Making Change will need to be rigorously analyzed and judged to allow for evidenced based best practice.

### **5.11 Conclusion.**

Using grounded theory, the investigator discovered the true intent of participants was to promote the health of their overweight or obese child. Surprisingly, only a few participants identified weight loss as a strategy to achieving this goal. Importantly, it was only through the establishment of healthy eating, physical activity, and minimizing sedentary activities that child weight loss was sought after or considered acceptable by

parents. Parental worry and concern for their child's health and well being was the primary motivator for making healthful changes.

This study acknowledges the dynamic and fluid process of behavior change given the increased complexity of the lived world and the stigma and co-morbidities associated with obesity. Current behavior change theories (Fishbein & Ajzen, 2010; Pender, 1996; Prochaska & Velicer, 1997; Rosenstock, 1974) describe the process of change through the lens of the individual by explaining how individuals create change for the self. The Pathway to Making Change contributes to the body of knowledge in nursing and other disciplines by explaining how behavior change occurs within a dyadic relationship. The Pathway to Making Change offers a novel theory of behavior change that focuses on the dependent parent-child relationship not the individual as the sole aspect of change that exists in the literature today. Notable is the implicit, contextually driven, dependent relationship between the parent-child dyad. The individual wants and needs of both parent and child must be reconciled for optimal healthful change to occur and be sustained. As a result the parent-child dyad was transformed into a working team, a working team that created a healthier child, parent, and family.

The Pathway to Making Change invites further scientific inquiry into the concepts of turning point and food intimacy. These concepts warrant future investigation to validate the role and relationship of stressful events and the development of food intimacy, explicate their relationship, and determine how they effect the development of overweight and obesity in children.

The Pathway to Making Change provides a substantive theory that explains how parents come to know their child is overweight and how they promote the health of their

overweight or obese child. The findings from this study provide advanced practice nursing and other healthcare providers new insight on how to assist, guide, and support parents and children in their quest for health and provide further avenues for scientific inquiry yet to be previously identified.

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# Appendix 1

Consent to Participate in a Research Study

## DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

### CONSENT TO PARTICIPATE IN A RESEARCH STUDY

**TITLE:** How do Parents Promote Health for their Overweight or Obese Child?

**INVESTIGATOR:**

Jennifer S. Laurent, MS, FNP-C  
281 Shelburne Street  
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**ADVISOR:**

Rick Zoucha, PhD, APRN, BC, CTN  
Associate Professor  
Duquesne University School of Nursing  
521 Fisher Hall  
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**SOURCE OF SUPPORT:**

None

**PURPOSE:**

You are being asked to participate in a research project that seeks to investigate your experiences promoting health for your child who is overweight or obese. You will be asked to provide demographic information about you and your child and to allow me to interview you for approximately 30-90 minutes on one or two occasions. The interview(s) will be taped. With the exception of any data identifying you or anyone you may talk about, the interview(s) will be transcribed verbatim. These are the only requests that will be made of you.

**RISKS AND BENEFITS:**

I do not know of any risks or direct benefits to you as a participant in this study. However, change in health and nursing care may result from the information you will provide.

**COMPENSATION:**

A \$20 honorarium will be given as a token of appreciation for time, travel, and assistance with the study. Participation in the project will require no monetary cost to you.

**CONFIDENTIALITY:**

Your name will never appear on any survey or research instrument used for this study. Your responses to questions may appear as de-identified quotes, after anything that could identify you or anyone you refer to have been removed. The findings of the study may be published or presented at professional meeting but at no time will your identity be shared or known. Your de-identified responses may also be shared with the chair and members of my dissertation committee. The person who will assist in transcribing the tapes will sign a confidentiality agreement and will not have access to your names. All written materials, audiotapes, and consent forms will be stored in a locked file in my home. Five years following completion of the study raw data will be destroyed, digital voice files shall be deleted, and paper documents shall be shredded.

**RIGHT TO WITHDRAW:**

You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time without explanation.

**SUMMARY OF RESULTS:**

A summary of the results of this research will be supplied to you, at no cost, upon request.

**VOLUNTARY CONSENT:**

I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call

Principal Investigator  
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Chair of the Duquesne University  
Institutional Review Board  
Dr. Paul Richer,  
xxx.xxx.xxxx

\_\_\_\_\_  
Participant's Name

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Investigator's Signature

\_\_\_\_\_  
Date



## Appendix 2

### Transcriptionist Confidentiality Agreement

# DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

### Confidentiality Statement

As transcriptionist you have direct access to study participant interview audio-tapes. By signing this document, you agree to maintain this information in a confidential manner at all times. This includes but is not limited to:

- Disclosing confidential information or allowing physical access to research data other than the principle investigator;
- Intentional or negligent mishandling of confidential information; or
- Leaving research data unattended.

I acknowledge and agree to the above requirements.

Name: \_\_\_\_\_  
(please print)

Signature/Date: \_\_\_\_\_ / \_\_\_\_\_  
(please sign) Date

# Appendix 3

Public Domain Participant Recruitment Flier

## Are you a parent of an overweight child?

I am a nurse researcher looking to interview parents of overweight children for a study I am conducting. The focus of this study is to discover how you help your child stay healthy.

If you are a parent of a 9 to 14 year old child who is overweight and are willing to volunteer 30-90 minutes of your time for an interview please contact me by phone or e-mail and we can arrange a convenient time to meet. A \$20 honorarium will be provided for your time, travel, and assistance in this study.

I have provided all contact information below. I look forward to your insight and knowledge. Thank you for your time and consideration and please feel free to pass along this information to a friend, colleague, or relative.

Parent Study  
xxx-xxx-xxxx  
parent\_study\_DU@yahoo.com

# Appendix 4

Individual Participant Recruitment Flier

## Are you a parent of an overweight child?

(colored paper, black font)

I am a nurse researcher looking to interview parents of overweight children. The focus of this study is to discover how you keep your child healthy.

If you are a parent of a 9 to 14 year old child who is overweight and are willing to volunteer 30-90 minutes of your time for an interview please contact me by phone or e-mail and we can arrange a convenient time to meet. A \$20 honorarium will be provided for your time, travel, and assistance in this study.

I have provided all contact information below. I look forward to your insight and knowledge. Thank you for your time and consideration and please feel free to pass along this information to a friend, colleague, or relative.

(business card attached)

Parent Study  
XXX-XXX-XXXX  
parent\_study\_DU@yahoo.com

# Appendix 5

## Newspaper Advertisement

Are you the parent of a 9-14 year old overweight child? A study is being conducted to discover how you help your child stay healthy. Please contact Jennifer @ XXX.XXX.XXXX or parent\_study\_DU@yahoo.com for an interview. \$20 for your time.

# Appendix 6

## Semi-Structured Interview Guide

### A. Demographic data

Relationship to child	Sugar sweet beverage (drinks/week)	
Age and gender of parent	Medication use	
Age of child	Pubertal status	
Child's grade	Reported weight of informant/partner	
Gender of child	Reported height of informant/partner	
Reported weight of child	Educational level of informant/partner	
Reported height of child	Ethnicity of informant/partner	
Hours of screen time/week	Religion	Practicing Y or N
Weekday average (hrs) Weekend average (hrs)	Annual gross income	

### B. Open ended questions:

- 1) How did you realize your child had a weight problem?
- 2) Do you have any idea what may have contributed or caused your child's weight gain?
- 3) Do you see it as a problem? Could you explain?
- 4) What is it like for you as a parent in caring for your child who is overweight? Could you explain?
- 5) How would you define healthy for your child?
  - a) Is there anything you do as a parent to keep your child healthy?
  - b) Is there anything you do as parent to make your child healthier?

- c) Did anything prompt you to employ these measures or strategies? If so, could you explain?
- 6) What problems or barriers did you encounter during this process?
  - a) How were you able to overcome these barriers? or What kept you from overcoming these barriers?
- 7) How did people respond to your health promoting measures?
  - a) What supports or help did you receive?
  - b) What type of role, if any, do the school/ health care provider/ family members play? How do they help or hinder you?
- 8) Is there anything else you would like to share?