Exploring Family Perceptions of Weight and Health:
A Qualitative Case Study with Parents and Kids

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Abstract

All youth are susceptible to weight-related issues. Little is known about how families navigate weight perception and communication. A multiple case study was conducted with five families to explore parent and child perceptions of health and weight, as well as communication within the home and environment. A within-case analysis identified each family’s facilitators and barriers to weight and health, perceptions of weight and health status, and health and weight management. Main themes from the across-case analysis included (i) communication and (ii) parenting/role-modelling. Based on the findings from this study, the importance of considering the family context, identifying the way parents and children communicate with each other and others about health and weight, and the influence of varying types of parenting practices cannot be understated. Taken together, it is clear that parents play a critical role in raising children to be physically healthy and to have positive attitudes about weight.

Keywords: weight talk, communication, parenting, role-modelling, health and weight management
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CHAPTER 1

Introduction

Overweight and obesity is regarded as a public health crisis, directly affecting one-sixth of the global population (Sharma, 2007) and one-fourth of Canadian youth (WHO, 2006). Children with one obese parent have a threefold likelihood of becoming an obese adult, and children with two obese parents have a tenfold probability (Sobko et al., 2011). This obesity risk is likely due to a combination of genetic and environmental factors, including parental socialization concerning children’s weight. Alongside this growing epidemic are the associated weight-related consequences for youth. For example, youth who are overweight are more likely to experience body dissatisfaction and weight stigma (Puhl & Heuer, 2009; Wardle & Cooke, 2005). Youth who are overweight or obese also tend to receive more weight-related comments, and fall victim to weight-related teasing (Eisenberg, Berge, Fulkerson, & Neumark-Sztainer, 2011). Together, this can lead to negative body image, lower self-esteem, and depression (Davison, Markey, & Birch, 2003; Luppino, de Wit, Bouvy, Stijnen, Cuijpers, Penninx, Zitman, 2010) and can have a drastic effect on youth’s development and well-being. Little is known about weight and health-related comments within the family environment. Since parents are the strongest influence of children’s thoughts, beliefs, and behaviours (Harter, 2012), it is important to understand the family environment specific to weight and health.

Children are commonly subjected to weight stigma, which is often expressed through negative weight-related comments and teasing (Eisenberg, Neumark-Sztainer, & Story, 2003). These comments and teasing can threaten youth’s psychological well-being and act as a barrier to adopting positive health behaviours (Eisenberg, Neumark-Sztainer, Haines, & Wall, 2006). Youth are also saturated with weight messages from various sources such as parents, peers,
siblings, and the media. While parents are often the most important influence for children younger than 12 years (Tinsley, 1992), there is little research looking at the role parental comments may play in youth perceptions of self and health behaviours. This being said, parents have the potential to protect their children, as well as the potential to inflict harm by being the perpetrators of weight bias. The negative influence may be in the form of indirect conversations, direct weight and health-related comments, and the family’s built environment more generally. Boys and girls, as well as overweight and non-overweight children experience health and weight challenges that can impact body image and mental health. How families – including parents and children - perceive and communicate about health and weight can inform strategies within the family context.

It is rare to find studies that focus on children’s understanding of health and weight (Fielden, Sillence, & Little, 2011), let alone their perceived parental pressures or support in weight challenges. In a recent qualitative study, Fielden and colleagues (2011) found that children received many mixed messages and the authors propose that a focus be placed on bridging the “knowledge-behaviour gap” between what children are learning in their environment and practicing at home (Fielden et al., 2011). Intervention strategies targeting children may be effective because they may not have formed stable weight-related attitudes and beliefs (Holt & Ricciardelli, 2008). Speaking to both children and parents about how they interpret what is being taught and practiced within the family environment and in the community at large may help researchers bridge this gap.

Using a qualitative case study approach, the study purpose was to explore the perceptions of health and weight communication in the family environment among children and their parents. Grounded in a constructivist paradigm, it is important to capture the meanings that children and
parents attribute to health and weight challenges and consider contextual experiences among families. Five families, who have a child from 7 to 12 years, and at least one parent or guardian who expresses either a concern for health or weight for the child, were purposefully recruited. Each guardian and child was interviewed separately. In a multi-level way, case study and across-case analyses were conducted to identify individual and familial perceptions and experiences. This study will help inform family-based interventions targeting healthy weight management and attitudes about weight and health.
Defining Key Terms

**Weight communication:**
This study uses this term to represent direct and indirect messages that participants report expressing or receiving within their family. It is important to note that this is not in reference to the direct interaction between family members, but rather, what the participants report and what the investigator observes. Therefore, it accounts for the interaction between the researcher and participants, and observations of family interactions, which is the researcher’s interpretation of the participant’s interpretations of communication amongst family members.

**Dialogue and communication:**
Dialogue refers to observed and reported conversations between family members. For example, a child may say, “My mother always tells me, “Eat your vegetables so you can be strong””. A parent may say, “Yeah, my daughter often asks me about which foods are healthy or unhealthy”.

**Weight talk:**
This refers to direct, indirect, positive and negative verbal commentary about weight. This is inclusive of weight commentary (positive or negative directed comments), weight teasing (negative directive commentary), encouragement to diet, or statements about weight in general.

**Perceptions:**
The term ‘perceptions’ is being used in this study to describe how family members recognize and identify their own health and weight status, the health and weight status of their family members, and how they think and feel about health and weight-related issues in general. This is inclusive of their understanding, attitudes, beliefs, and values.

**Parents and caregivers:**
For the purpose of this thesis, the term “parent” will be used to encompass the role of parent (i.e., mother, father), legal guardian, or caregiver. All families that participated did include one or both
biological parents, and the terms “caregivers” is used for other family members that play or have played a role in raising the children.
CHAPTER 2

Literature Review

Introduction

The global obesity rate has nearly doubled between 1980 and 2008 from approximately 13% to 24% (WHO, 2008). Approximately 65% of the population live in countries where overweight and obesity kills more people than underweight-inclusive of all high-income and most middle income countries (WHO, 2008). Further, 10% of school-aged children are overweight (Sobko et al., 2011). The obesity epidemic may lead this generation of children to be the first to live a shorter life span than their parents (Cornette, 2008). The obesity rates are disconcerting given the myriad of health consequences associated with overweight and obesity.

Children as young as five years old have expressed having weight concerns. Thus, the role of the parents in perpetuating weight-related messages are highlighted due to their strong influence on children in these younger years. Children in elementary school also express both weight and muscle concerns, which put them at risk for developing maladaptive weight-control behaviours (Davison, Markey, & Birch, 2003). Weight concerns have been documented in as many as half of girls aged 8-12, of which 40% reported engagement in weight loss strategies (Rolland, Farnill, & Griffiths, 1998). It is disconcerting to note that both mothers and fathers can perpetuate weight stigma and body image in their sons and daughters in both positive and negative ways (Helfert & Warschburger, 2011). Parental involvement is a strong factor in children’s weight-related perceptions and attitudes (M. Golan & Crow, 2004), both directly (e.g., explicit comments and behaviors) and indirectly (e.g., secondary actions, environment). However, there is limited research focused on parental communication and involvement on adolescents’ self-perceptions. While some researchers have noted that parents can protect their children from body image concerns (Neumark-Sztainer, 2005b), others have noted that parents (particularly mothers) may
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foster such concerns (Eisenberg et al., 2011; Fielden et al., 2011; Helfert & Warschburger, 2011). For example, Sabiston and colleagues reported that the mothers of adolescent girls would comment on their weight, structure eating and exercise, and consequently increase girls’ body image concerns (Sabiston, Sedgwick, Crocker, Kowalski & Mack, 2007). Nonetheless, Neumark-Sztainer (2005) states that parents should feel empowered to protect their children from body image concerns and weight stigma. However, little is known about how parents and children communicate weight and health challenges. This information would help inform parents and health care practitioners of targeted approaches needed for family-based intervention.

In addition to possible teasing, negative comments and indirect and direct actions in the family environment, internalization of weight stigma and bias is growing among youth. The internalization of these stereotypes may increase susceptibility to binge eating and refusal to diet in response to stigma (Puhl, Moss-Racusin, & Schwartz, 2012), in addition to reduced psychological well-being, physical activity (PA), and maladaptive eating behaviours (Puhl & Latner, 2007; Storch et al., 2007). Parents may play a role in protecting their child from internalizing weight bias by fostering a healthy environment through diet and PA, role-modelling positive health behaviours, and creating a supportive environment for children to communicate about weight (Neumark-Sztainer, 2005b).

Although body dissatisfaction is reported more frequently and harshly among girls (Hargreaves & Tiggemann, 2004; Wardle & Cooke, 2005), these experiences are not unique to girls. While research indicates that girls report more weight stigma, it is unclear if boys experience it less or are less vulnerable. There is some evidence that girls and boys differ in the type of stigma as opposed to the amount (Pearce, Boergers, & Prinstein, 2002; Puhl & Latner, 2007). For example, some research has shown that obese boys tend to experience teasing and
bullying, whereas obese girls experience more relational victimization, such as exclusion and hurtful treatment (Pearce, Boergers, & Prinstein, 2002). Experiences of weight teasing and body dissatisfaction are also not exclusive to obese individuals (Wardle & Cooke, 2005). However, little is known about the family dynamic around communication of weight and health concerns in families of young boys and girls of healthy weight.

The important role of parents in perpetuating weight-related beliefs and attitudes and protecting children from weight-related influences is supported in theoretical models of social and behavioural influence. Social ecological and motivational perspectives (Bronfenbrenner, 1986; Ryan & Deci, 2000) suggest that parents are the main influence on youth. Specifically, parents can impact their child’s perceptions and behaviours through the role-modelling and emotional support they provide. Yet, it is still unclear how to effectively ‘engage and support’ parents in prevention efforts (Golley, Hendrie, Slater, & Corsini, 2011). Many clinicians do not understand why parents are unable to adhere to behaviour changes for their children, such as reducing sweetened beverages and television (Skelton, Buehler, Irby, & Grzywacz, 2012). Grasping how parents socialize their children in regards to weight and health, within a society that is saturated in weight messaging, is important. Therefore, more research is needed in understanding how families communicate about weight, along with their perceptions, experiences, and behaviours. An in-depth exploration of families can contribute to the literature by providing both parents and children with a voice on how they perceive and address weight and health challenges. These familial perceptions may contribute to not only directly informing parents on how to cope with potential challenges but in re-framing how health professionals can best support families with weight concerns. These challenges may include the ‘normative acceptance’ of weight stigma in western culture, with no exception of overweight individuals.
holding weight stigma themselves (Puhl et al., 2012). For a child or adolescent, these challenges may include learning how to cope with weight commentary and teasing, knowing who they can have these conversations with, and how to focus on health as opposed to weight. For parents, challenges may include acknowledging if their child is healthy, knowing what and how to communicate these issues with their child in an age-appropriate manner, and how to foster a healthy environment for the family.

**Weight-Related Consequences in Youth**

**Physical consequences of excess weight.** The long-term health risks associated with obesity are well known to include type-2 diabetes, hypertension, coronary artery disease and stroke (Kirk, Penney, & McHugh, 2010). Existing studies are now finding more physical consequences of obesity in children, such as sleep apnoea, cardiovascular, metabolic, pulmonary, skeletal, and gastrointestinal diseases and/or disorders (Daniels, 2006). Both hypertension and atherosclerosis can lead to cardiovascular disease, and early stages are now being detected in obese youth. Metabolic disorders include insulin resistance, dyslipidemia, metabolic syndrome, and type-2 diabetes. Notably, type-2 diabetes was at one time referred to as “adult-onset” but has become a severe health risk for children (Daniels, 2006). Although metabolic syndrome (i.e., meeting a set criteria for waist circumference, in addition to two of the following: raised triglycerides, reduced HDL-cholesterol, raised blood pressure, and raised fasting plasma glucose (Alberti, Zimmet, & Shaw, 2005) has yet to be clearly defined in paediatrics, several studies have found that childhood obesity puts a child at a much higher risk. There are estimates of metabolic syndrome in 4% of normal-weight children and 30% of obese children (Cook, Weitzman, Auinger, Nguyen, & Dietz, 2003); and a 50% increased risk in overweight youth per half-unit body mass index (BMI) increase (Weiss et al., 2004). Pulmonary disorders are
inclusive of asthma and obstructive sleep apnoea. Sleep disordered breathing is likely the least recognized health complication in overweight youth (Daniels, 2006). Many of these disorders are risk factors for one another, and therefore one child can have numerous obesity-related conditions that accumulate over time, and become more severe. This can also be said about the psychological and social effects associated with childhood obesity.

**Psychosocial consequences.** Obesity is often considered a medical condition and the psychological consequences are often left unaddressed. The consequences of childhood obesity far extend long-term health risks. There are immediate psychosocial and emotional consequences associated with this growing epidemic. Among the psychological consequences are decreased self-esteem and perceived health-related quality of life, and increased anxiety, depression, and suicidal behaviour (Cornette, 2008; Schwimmer, Burwinkle, & Varni, 2003; Stice, Hayward, Cameron, Killen, & Taylor, 2000). An American national survey of obese youth measured anxiety, depression, stress coping, self-worth and behaviour problems (BeLue, Francis, & Colaco, 2009). Collectively, the reported mental health problems increased with BMI, but were moderated by race. Specifically, they found obese youth to be 60% more likely to be diagnosed with depression or anxiety, 40% more likely to experiencing feeling worthlessness, and 30% more likely of being withdrawn. Not surprisingly, overweight children were more likely to be victims of bullying, but in some cases, also more likely to be perpetrators of bullying in comparison to their non-overweight peers (Janssen, Craig, Boyce, & Pickett, 2004). Further, youth who were 1.7 times more likely to have been told they have behavioural problems by a healthcare professional (BeLue et al., 2009). One study with obese boys and girls revealed that over half of the children reported undergoing considerable problems with peers (Warschburger, 2005). Furthermore, in a study focused on youth quality of life (QOL), obese children and
adolescents were 5.5 times more likely to have impaired health-related QOL in comparison to the healthy youth (Schwimmer et al., 2003). Alarmingly, the obese youth in this study reported comparable health-related QOL to youth diagnosed with cancer (Schwimmer et al., 2003).

Weight-based victimization research proposes that children who are at higher stages of obesity are more vulnerable to weight bias (Neumark-Sztainer et al., 2002; Puhl & Latner, 2007). And, obese children are teased about 3 times more than their normal-weight peers (Neumark-Sztainer et al., 2002). Therefore, obesity is a weight issue that can be accompanied by lower psychological well-being in addition to the physical threats it poses.

In addition to the psychosocial consequences discussed, self-esteem has been highly studied in association to weight. Despite the inconsistent research between obesity and self-esteem (Frost & McKelvie, 2004; Gibson, 2010; Tiggemann, 2005), self-esteem has been linked with weight and body dissatisfaction in youth (Miller & Downey, 1999). Prevention and intervention strategies may be enhanced by providing adolescents with coping skills to reduce these pressures from lowering their self-esteem (Keery, Boutelle, Van Den Berg, & Thompson, 2005; McCabe & Ricciardelli, 2003). Further weight-related consequences among youth extend to lower academic achievement in schools that have lower overweight prevalence. In fact, weight bias among educators can affect academic achievement in obese youth at the elementary level (Puhl & Heuer, 2009).

‘Obesogenic’ Environment

Some scholars have proposed that there is an ‘obesogenic’ (i.e., obesity-promoting) environment through which the developmental literature suggests that parents are key actors. Obesogenicity has been defined as an environment with “the sum of influences that the surroundings, opportunities, or conditions of life have on promoting obesity in individuals or
populations” (Swinburn, Egger, & Raza, 1999, p.564). They further use the term “leptogenic” as the antonym, explaining that obesogenic elements are “barriers” to health while leptogenic elements are enhancers (Swinburn, Egger, & Raza, 1999). An obesogenic built environment is mainly characterized by a poor food environment, an urban setting with low walkability, few PA settings, as well as safety and aesthetics (Lovasi, Hutson, Guerra, & Neckerman, 2009). Furthermore, the ‘obesogenic’ environment has been defined as “an environment that promotes excessive food intake and discourages physical activity” (Maximova et al., 2008). However, there is a lack of consensus on definitions of the obesogenic environment (Kirk et al., 2010). It is not known whether certain families perceive their environment to be ‘obesogenic’ and/or how they feel about this research perspective. It is possible that families would feel affronted to be perceived and labelled as living in an obesity-promoting environment. The notion of an ‘obesogenic’ environment may reinforce the belief that obesity is controllable, and therefore attribute it solely to be the result of poor choices. Individuals living in an environment with limited access or availability of health resources, services may feel that they have reduced controllability of their weight. In other words, it may also lead families in lower socioeconomic environments to feel doomed to experience weight challenges, due to the large focus on environmental aspects (i.e.: financial and resource constraints).

**Family-based Interventions**

Not surprisingly, obesity interventions that target parents in supporting their children, as well as those that target parents alone for weight loss hold promising results. A study by Jansen and colleagues (2011) revealed that treating parents alone for weight loss has a significant effect on parent and child BMI. Of the children whose parents were in the cognitive behavioural treatment group, 22% were no longer overweight and 8.7% went from being obese to being
overweight (Jansen, Mulkens, & Jansen, 2011). One explanation may be that parents directly made changes for their children when undergoing treatment, or perhaps it was their role-modelling that impacted children the most. This study supports that the entire family unit can benefit from intervening solely through the parents, as well as demonstrating the potential strength of the relationship between parents and their children’s health behaviours. The literature supports that parental health behaviours may be more influential than their attitudes (Tinsley, 1992). In addition to the transmission of positive behaviours stemming from parent-based interventions, parental involvement in childhood obesity prevention and treatment may also be a critical component in effectiveness of a program (Young, Northern, Lister, Drummond, & O'Brien, 2007). Based on the culmination of the evidence, there is a call for programs to include both parents and children within the home (Borra, Kelly, Shirreffs, Neville, & Geiger, 2003). To date, there are few research strategies aimed at understanding the weight and health attitudes and behaviours of the comprehensive family unit.

Holt and colleagues have conducted a qualitative study exploring family treatment preferences for overweight youth and state that future considerations should include socioeconomic status, race/ethnicity, family composition, and relative weight of parents and family members (Holt et al., 2008). This study will allow some of these factors to be taken into consideration. Specifically, comparing parental and child perspectives will inform the research with a contextualized understanding of these familial experiences within their environment and community. Considering each family’s composition, ethnicity, and living situation allows this study to appreciate emerging themes from each family, relative to their circumstance. Currently, the literature suggests that some parents report barriers to preventing overweight among children to include conflicting professional advice, a lack of resources, and extra familial influences such
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as the media (Pocock, Trivedi, Wills, Bunn, & Magnusson, 2009). This qualitative study reveals unique considerations to improve family-based interventions, as these interventions prove beneficial.

**Weight-Related Influences in Youth**

There are many ways through which attitudes and beliefs about weight are communicated. How one perceives their own weight, or feels that others perceive their weight can have strong implications regarding their health behaviours and psychological wellbeing. This section will explore weight stigma, weight perception, and weight talk, to consider multiple forms of transmitting weight perceptions and their effect on youth.

**Weight stigma.** Weight stigma refers to “negative weight-related attitudes and beliefs that are manifested by stereotypes, bias, rejection, and prejudice toward [individuals] because they are overweight or obese” (Puhl & Latner, 2007, p. 558). Weight stigmatization may be particularly harmful for children and adolescents due to increased vulnerability and sensitivity among youth (Puhl & Latner, 2007). Furthermore, obesity stigmatization may be considered a type of *symbolic weightism* (Stockton, 2010). Despite the fact that obesity rates continue to rise, the stigma concurrently increased over the last 40 years (Latner & Stunkard, 2003). Obese individuals continue to be perceived as sad, argumentative, lazy & lacking self-determination (Gibson, 2010). Children as young as 3 years old express “anti-fat attitudes” and view obese children as the least desirable playmates (Brylinsky & Moore, 1994; Latner & Stunkard, 2003). In a study with 7-9 year old children, drawings of overweight children were rated least favourably in comparison to thin and normal weight children. This was irrespective of the BMI of the children rating these images (Kraig & Keel, 2001), suggesting weight stigma among overweight children as well as non-overweight children. In another study, the overweight
preschool children revealed stronger stigma than the non-overweight children (Cramer & Steinwert, 1998). These findings imply that obese children may experience social isolation from their peers (Puhl & Latner, 2007).

A review of obesity stigma in children (Puhl & Latner, 2007) suggests that understanding the nature and effects of weight stigma is as important as efforts to reduce obesity. Based on Attribution Theory (Crandall, 1994; Puhl & Brownell, 2003), individuals form their attitudes and beliefs of obese persons based on the perception that weight is controllable. These perceptions are perpetuated through environmental and social cues, including within the family’s home, and through parents, teachers, and peers. Reports of up to a quarter of high school teachers believed their obese students were more emotional, had more family problems, and were less likely to succeed at work (Neumark-Sztainer, Story, & Harris, 1999). Furthermore, strong weight bias has also been shown in health professionals specializing in obesity at an international obesity conference (Schwartz, Chambliss, Brownell, Blair, & Billington, 2003), which can have critical implications for their ability to help individuals seeking resources. This trend is not likely to change, as it is also seen in pre-service health students who will be the next generation of health professionals (O'Brien, Puhl, Latner, Mir, & Hunter, 2010). Not only is weight bias prevalent in these contexts, but may also be present in interpersonal relationships among romantic partners and family members (Puhl & Heuer, 2009). Many reports of weight stigma in children include parents as one of the primary source (Neumark-Sztainer et al., 2002). Some researchers have proposed that parents of overweight youth may feel judged by others and foster these stereotypes towards their children in response, but this has not been explored (Puhl & Latner, 2007). Children may in turn develop anti-fat stereotypes either through their parents’ stereotypes or as a result of their parents encouraging a lean body ideal. One study linked high parental focus on
appearance, paternal education, and perception of maternal influence on weight concern to high weight stereotypes among 9 year old girls (Davison & Birch, 2004). Taken together, weight stigma may be experienced across the lifespan, and elicited by health professionals, teachers, parents and peers. No research supports that this stigma may motivate individuals to engage in positive health behaviours (Puhl & Latner, 2007).

**Weight perceptions.** Accurate weight perception is the congruence between an individual’s perceived weight and actual weight, whereas weight misperception is the incongruence between the two. Misperception is common in the population (Kuchler & Variyam, 2003), and represents both over-perceiving or under-perceiving one’s weight. These discrepancies have been associated with negative outcomes, such as maladaptive weight loss strategies and less engagement in physical activity (Harring, Montgomery, & Hardin, 2011; Ursoniu, Putnoky, & Vlaicu, 2011; Wharton, Adams, & Hampl, 2008).

Despite the large focus on adolescents, concerns about weight at age 5, regardless of actual weight, can be predictive of concerns at age 7 to 9 (Davison et al., 2003). Girls with body dissatisfaction at age 5 to 7 have increased likelihood of maladaptive eating, dieting, and dietary restraint at age 9. This suggests that, not only are young girls worried about their bodies, but actively engaged in risky behaviours in attempt to address their concerns. Similarly, girls at age 7 to 9 with higher BMI reported higher body dissatisfaction and weight concern (Davison et al., 2003). As previously mentioned, this is not unique to girls. Boys appear to drive for musculularity, in comparison to females, who tend to drive for thinness (McCabe & Ricciardelli, 2004). There are boys that report body dissatisfaction at all ages, but may be less likely to report or more likely to diminish their experiences aloud (Cohane & Pope Jr, 2001).
Irrespective of the increase in weight stigma, the literature conversely suggests that many parents of overweight children report that their children are normal weight (e.g., misperception). Furthermore, overweight and obese youth underestimate their weight, and more so when parents and peers are overweight (Maximova et al., 2008). Many parents are unaware or unconcerned about their overweight child’s weight status (Crawford, Timperio, Telford, & Salmon, 2006; Etelson, Brand, Patrick, & Shirali, 2003), which may translate into children perceiving lack of support. In a cross-sectional survey by Crawford and colleagues (2006), 89% of parents with 5-6 year old children and 63% of parents with 10-12 year old children were unaware that their child was overweight. Specifically, only 3% of parents perceived their 5-6 year old child to be overweight, when in fact 23% of these children were overweight; similarly only 14% of parents with 10-12 year olds reported their child was overweight when 29% were overweight (Crawford et al., 2006). These parents were unaware of their child’s overweight, which is considered problematic since a lack of recognizing overweight among obese people may result in less interest in or attempts at weight loss (Maximova et al., 2008). Parent awareness of their child’s overweight or obesity is critical for them to adopt a “readiness to change” in their child’s lifestyle (Rhee, De Lago, Arscott-Mills, & Mehta, 2005). Parents who recognize their child’s excess weight and identify it as a health threat are more likely to be in the preparation phase and therefore more likely to engage in behaviour modification (Edmunds, Waters, & Elliott, 2001). Rhee and colleagues (2005) suggest health care providers need to focus on determining if parents are aware of their child’s overweight and assess their level of readiness to change before confronting them with recommendations. Assessing parental readiness may be useful information to tailor interventions based on which stage the parent(s) are in their readiness for change (Rhee et al., 2005).
Etelson and colleagues (2003) recommend paediatricians develop strategies to assist parents in accurately perceiving their child’s weight status. In order to increase parental awareness of their child’s weight, physicians can encourage them to check their child’s weight more frequently and provide them with a growth chart to help them comprehend their child’s weight status (Etelson et al., 2003). Conversely, being unaware or unconcerned of a child’s overweight may protect these families from weight stigma. But as previously stated, being overly concerned about weight also poses negative consequences. Thus, initiatives should be aware of these differences and target families differently based on concern about weight as opposed to actual weight. Strategies to help parents become aware of their children’s weight may increase weight talk, which is prevalent in families with and without weight problems.

A qualitative study by Borra and colleagues also provided invaluable insight into parent and child perceptions of weight concerns. In the first phase of a three-phase study, 16 focus groups of children (8-12 years), parents, and teachers explored health knowledge and attitudes. Interestingly, children were grouped based on parental perception of weight status, and parents were dichotomized based on being “less” or “more” concerned about their child’s weight. Parents equated their child’s health to the absence of medical issues, and only considered weight to be problematic if it impeded them from being physically and socially adept with their peers (Borra et al., 2003). Additionally, parents believed that their child would “outgrow” being overweight, and voiced that this was supported by their doctors (Borra, et al., 2003). They were also concerned that intervening may lead their child to detrimental weight control behaviours. These concerns were not without merit, as some overweight 11 and 12 year olds expressed skipping meals to lose weight. In concluding the focus groups, observational study, and qualitative assessment of notions of overweight (see Borra et al., 2003), the authors emphasized
the importance of parent and child cooperation. Children voiced wanting parental guidance, role models and emotional support in their strivings to be healthy.

**Weight talk.** The notion of weight talk is generally operationalized as negative comments, encouragement for weight change, or indirect references focused on weight that are directed from others in one’s social network. A quantitative assessment of parental weight talk on adolescent girls looked at numerous forms of weight talk (comments, encouragement for weight change, and family weight-teasing) and found no evidence of positive outcomes for girls (Neumark-Sztainer et al., 2010). In fact, this study found weight talk from mothers especially, was linked to disordered eating among girls. Many youth report receiving weight comments and teasing from family members and peers (Keery et al., 2005). Perhaps many of these comments are made with the intention on helping one become healthier, as ‘health’ and ‘weight’ have alarmingly come to be used interchangeably (Glenn, 2013).

In measurement scales, weight commentary typically refers to people speaking about an individual’s weight or encouraging one to lose weight, whereas teasing is specific to a comment that makes the individual feel badly about their appearance (Neumark-Sztainer et al., 2002). Encouragement to control weight from mothers and fathers has been related to daughters’ dieting, weight, and desire to lose weight (Thelen & Cormier, 1995). Further supporting evidence found that parental communication around weight control might be more influential than modelling. This study found no significant differences between the amount of pressure communicated from mothers or fathers, or in the amount that sons or daughters were influenced (Wertheim, Martin, Prior, Sanson, & Smart, 2002). Mothers and female friends particularly influence young girls through encouragement of eating behaviours and modelling weight loss.
behaviours (Ricciardelli & McCabe, 2003). Fathers have also been shown to influence daughters through transmitting body-related messages (Thelen & Cormier, 1995).

Many studies reveal a relationship between teasing and body dissatisfaction (Eisenberg et al., 2003; Menzel et al., 2010). In some cases, actual weight does not directly affect body image, but rather is mediated by the individual’s history of weight teasing (Thompson, Coovert, Richards, Johnson, & Cattarin, 1995). In comparison to girls who are not teased, girls who are teased by a family member are more at risk of developing unhealthy weight control behaviours and body dissatisfaction (Thompson et al., 1995). In a study of almost 5000 adolescents, 29% of girls and 18% of boys who were teased reported binge-eating compared to 16% of girls and 7% of boys who were not teased (Neumark-Sztainer et al., 2002). This study also found that 51% of girls and 13% of boys who were teased about their weight reported suicidal thoughts, in comparison to 25% of girls and 4% of boys who were not teased. Girls who reported being teased by at least one sibling have shown lower levels of self-esteem, higher levels of body dissatisfaction, depression, thin-ideal internalization, and bulimic behaviours (Keery et al., 2005). Surprisingly, encouragement for weight control may be a stronger predictor of body dissatisfaction in comparison to other forms of parental commentary (Kluck, 2010).

Parents likely do not perceive themselves to tease or bully their children about their appearance. However, parents may unintentionally pose harmful pressure through the appearance comments and messages they provide. A longitudinal exploration of appearance-related social pressures on adolescents uniquely distinguished between disparaging comments (i.e. hurtful nicknames, jokes about child’s body shape) and encouraging messages about weight loss (Helfert & Warschburger, 2011). In contrast to expectations, the disparaging messages were not significant, whereas encouraging or reminding comments were more hurtful than anticipated.
Obesity-related stigma, teasing and bullying from parents, peers, and other social influences are linked to a child’s increased risk for a host of psychosocial outcomes, including suicide ideation (Eaton, Lowry, Brener, Galuska, & Crosby, 2005).

Both girls and boys who are overweight have been shown to experience increased weight teasing and negative commentary from others in their social network, such as family members and peers (Neumark-Sztainer et al., 2002). However, the impact of weight commentary and teasing is not restricted to overweight youth (Eisenberg et al., 2006). Healthy weight adolescents report weight commentary and teasing and negative consequences including lowered self-esteem, body dissatisfaction, and disordered eating (Helfert & Warschburger, 2011).

Researchers advocate that health professionals support parents in creating a supportive environment around weight comments (Neumark-Sztainer et al., 2010) in order to reduce the potentially adverse consequences. Unfortunately, healthcare professionals regularly focus on counselling obese patients about weight loss methods, stressing the physical health risks with little consideration for the psychological aspects (Bagchi, 2010). The negative psychological outcomes can be present in all children with actual or perceived weight concerns and must be acknowledged by health professionals.

Recommendations have been made for strategies to be parent-centered as well as health-centered (M. Golan & Crow, 2004), to remove focus on weight due to the societal stigma. In other words, parents should be involved in reducing these outcomes as they provide the contextual environment for children (M. Golan & Crow, 2004), and should be made aware of the factors that influence health and weight concerns within the family environment. Further, a health-centered approach implies focusing on a lifestyle that is conducive of health opposed to being weight-centered by emphasising an ideal body weight and body image.
Parenting Practices and Role-Modelling

Although there are many sources that contribute to children’s perceptions, attitudes, beliefs, and behaviours, parents appear to be a principal source of influence (Rodgers & Chabrol, 2009). Parents are also fundamental in the development of their child’s body concerns (Helfert & Warschburger, 2011) and prevention of obesity. Parental socialization impacts how children perceive and engage in weight concerns, diet, and PA. In this regard, parent feeding habits, parenting styles, and parental beliefs can all potentially shape child health as well as their weight-related health concerns.

Bronfenbrenner suggests that the family is not only the most important dimension of a child’s life but the most accessible, and potentially has the longest and strongest impact on most individuals (Bronfenbrenner, 1993). Beyond the explanation of proximity, parents are the most important agents of socialization and have a role in transmitting beliefs and practices to their children (Grusec, Davidov, Grusec, & Hastings, 2007). Parents influence their child’s beliefs, values, goals, and performance (Fredricks & Eccles, 2004). More directly, many children are dependent on their parents for food purchases and preparation, and access to PA resources. Taken together, parents influence their children’s behaviours and beliefs through various mechanisms including their parenting styles, and their own behaviours and beliefs.

Parenting styles. Parenting styles influence how children respond to parents, and are often categorized as autonomous or controlling. Autonomy-supportive parents will have a more positive effect on their child’s diet and PA than controlling parents. For example, parents who impose restrictive eating with their children increases the child’s weight gain. A literature review by Clark and colleagues (2007) concluded that there is significant support for a causal association between child overweight and parental restriction. In qualitative studies, parents
explained their use of various feeding behaviours to reward, bribe, or pacify their child (Clark,
explored social physique anxiety (SPA) experiences among adolescent females of 13 to 18 years
old. Findings included that these young women considered messages from their friends and
family to be important in shaping their perceptions of their physical appearance. In addition,
although some young women described their friends and family as a ‘comfort zone’, some others
expressed feeling pressure from mothers to lose weight, in some cases elicited feelings of SPA
(Sabiston et al., 2007).

**Role-modelling.** By being role models, parents provide their children with a model of
appropriate and inappropriate behaviours. Parental role-modelling is particularly critical during
the early years. For example, children of two active parents are almost six times more likely to
be active than children of inactive parents (L. L. Moore et al., 1991). Positive role-modelling
should allow children to witness the *process* of being healthy. It is important to note that role
models can passively impact children by sending messages that emphasize the importance of
being thin (an outcome), opposed to living a healthy lifestyle (Fielden et al., 2011). For example,
girls aim to emulate female family members who are pursuing a thin ideal (Fielden et al., 2011).
Among many others, Guidetti and Cavazza (2007) provide evidence of children demonstrating
imitation and avoidance of their parent’s food choices due to the ‘shared family environment’
(Guidetti & Cavazza, 2008). Specific ways that parents influence their child’s health is through
diet and PA regulation, as children have little control over these aspects (McCabe & Ricciardelli,
2003).
Social Support

**Dietary regulation.** There are many ways through which parents influence and regulate their child’s diet. Parents with good awareness of nutrition are more likely to make healthy food choices for their children’s food (Clark et al., 2007). One study found differences in mother and father feeding roles and recommends that fathers are included in future studies of this kind (Johannsen, Johannsen, & Specker, 2006). When the focus is on dieting behaviours, Wertheim and colleagues (2002) found supportive evidence that parents who encourage their daughter to diet were related to body dissatisfaction; however the relationship was weakened when controlled for weight. In contrast, Field and colleagues (2001) found parental influences were predictive of adolescent girls becoming highly concerned with weight and becoming a constant dieter, independent of age and BMI. Authors rationalize that parents have legitimate concerns for their children’s weight due to the potential health risks, but they must keep in mind that their actions through role-modelling will likely transmit to their children. For instance, mothers’ dieting is linked to extreme weight control behaviours in girls (Neumark-Sztainer et al., 2010).

**Physical activity regulation.** Similarly to dietary influence, there are multiple forms of support involved in children’s PA. Parental social support can influence youth PA (Beets, Cardinal, & Alderman, 2010; Sabiston & Crocker, 2008) through tangible support (i.e., *instrumental*: transportation; *conditional*: supervision) and intangible support (i.e., *motivational*: encouragement, praise; *informational*: discuss health benefits). Tangible support is more consistently linked with child PA compared to intangible support (Pugliese & Tinsley, 2007; Sallis, Prochaska, & Taylor, 2000). Despite evidence linking parental social support with PA, findings are inconsistent in sources (mother, father), and child characteristics (weight status, gender) that are associated with PA (Sallis et al., 2000). More specifically regarding parental
influences on child PA, parental social support is positively correlated with child’s enjoyment and enthusiasm (Holt, Hoar, Hanton, Mellalieu, 2006). PA support extends to financial support for program enrolment and equipment, as well as a time investment such as factoring PA in the family schedule.

It is evident that parents can support healthy behaviours on multiple levels and can be highly influential on what children consume and expend. Further research supports that parents as the primary source of influence for their children before shifting to peers and media in adolescence (Field et al., 2001). This highlights the importance of targeting parents before their children enter adolescence, as perhaps this can be protective of peer and media pressures.

**Theoretical Lens**

The ecological framework (Bronfenbrenner, 1986) acknowledges the individual, family, environment, health care system and the policy and program levels of youth obesity and weight-related challenges. This model acknowledges the bi-directional influences between parents and children (Bronfenbrenner, 1993). Further, an ecological approach extends to understanding individuals’ beliefs and knowledge, as well as environmental influences.

Based on Bronfenbrenner’s ecological model (Bronfenbrenner, 1994), health can be understood as a product of many factors (Bryans, Cornish, & McIntosh, 2009). As such, weight challenges are not attributed solely to PA, diet, parenting, the community and public policy, but rather recognized as an interactive system of influences. The ecological model consists of four systems that Bronfenbrenner (1993) describes as “nested structures”: the microsystem, mesosystem, exosystem, and macrosystem. These systems are layered; figuratively like Russian dolls in the sense that one system is continually inside the other (Bronfenbrenner, 1993).
The microsystem is the layer closest to the developing child and consists of the immediate environment (Bronfenbrenner, 1994). This model accounts for bi-directional influences, which can be the case with the relationship between parents and children, or families and health care providers. These bi-directional relationships characterize the mesosystem, and can otherwise be seen as interacting microsystems (Bronfenbrenner, 1993). The exosystem is composed of elements that are external to the child, and therefore have an indirect effect. For instance, parents’ social network or work environment are a part of the exosystem (Bronfenbrenner, 1986). The macrosystem encompasses culture which can be inclusive of beliefs, customs, knowledge, and more (Bronfenbrenner, 1993). The chronosystem is an additional element to symbolize the passage of time in relation to the developing child, which allows research to document changes and transitions (i.e.: school entry) throughout development (Bronfenbrenner, 1986). A diagram has been created to illustrate various levels of influence on health and weight, using Family 1 as an example (see Appendix A).

From an ecological theory perspective (Bryans et al., 2009), there is an interaction of contributing health factors on various levels of a child’s life. This view acknowledges that a child’s health is both directly and indirectly affected by their parents and home environment (Gable & Lutz, 2000). This framework allows for a comprehensive understanding of bi-directional influences between parents and children and may prove beneficial in understanding social support facets of health and weight-related challenges in the family context. This model also highlights that changing attitudes, beliefs, and family communication is a challenging task because of all of these influences impacting each family. These interacting systems need to be considered when exploring venues for change.
Neumark-Sztainer (2005) presents a modified ecological model entitled “A holistic and integrated approach for understanding factors causing weight-related problems: Spheres of influence” (See Neumark-Sztainer, 2005 p.25). The model begins with the innermost layer of individual characteristics, followed by family influences, peer influences, school and other institutional, community, and societal factors. At the individual level, factors such as emotional well-being, PA and weight control behaviours, age, and gender are among the characteristics that can potentially influence health and weight issues. At the family level, family communication, parental support, weight talk, and food availability can influence health and weight. At the peer level, both peer support or teasing can have an impact. Institutional factors can include school health classes and community factors can include parks, fast-food restaurants, and available services. Finally, the social level is inclusive of the media influences, weight discrimination, and sociocultural norms about the body (Neumark-Sztainer, 2005a). Similar to Bronfenbrenner’s approach, Neumark-Sztainer also considers the bidirectional influences in her model. For example, parents who perceive their child to have a genetic predisposition to being obese are more likely to monitor and regulate their child’s diet, which may in turn lower their child’s ability to self-regulate. Parents who have experienced body image issues in their own lives can affect their child’s concerns and influence the types of weight talk they engage in both inside and outside of the home. At a more external level, the notion of living in an obesogenic (i.e., obesity-promoting) environment is also impacted by what families consume. For example, some school policies allow vending machines with soda pop, but parents and children have a voice on what is sold through their purchases (Neumark-Sztainer, 2005a).
Purpose and Research Questions

The importance of the family environment and parental support for children’s weight concerns, psychological well-being, and health behaviours was explored in this thesis. A multiple case study approach was used to better understand parent and children’s perceptions of weight and health challenges, messages and communication in the home, and the environment. Parent(s) and a child from each family were interviewed separately in order to understand the families’ perceptions of weight and their environment in regard to adopting a healthy lifestyle. Data were analyzed through a pattern matching thematic analysis of semi-structured interviews. Understanding the families’ perceptions may allow for better support for children and parents in addressing these topics in a more positive and practical manner. The data collection, analysis, and interpretation was directed by an ecological framework to acknowledge the individual, family, environment, and cultural contexts that influence how health and weight are perceived and communicated.

More specifically, the specific research questions were: (1) What is the dialogue around weight talk among family members; how do parents express communicating weight attitudes with their children? (2) How do children perceive their parent’s views surrounding health and weight? (3) How do parent’s weight-related experiences relate to their parenting behaviours surrounding weight? As an overarching question to initiate communication, it was also of interest to understand what environmental triggers facilitate and inhibit positive feelings and communication about health and weight.
CHAPTER 3

Methodology

Study Design

This exploratory qualitative study used a case study research design and included interviews, photos and observations. A case study is “an empirical inquiry about a contemporary phenomenon, set within its real-world context—especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2009, p.18). In this multiple case study, the case is the social phenomenon of weight and health concerns within the family. Within case studies, there is an importance of setting precise boundaries in specifying inclusion and exclusion criteria, as a case is a ‘unit of analysis’ and a bounded entity (Yin, 2012, p.6). This case study is bounded by place in that all participants live in an urban environment in the greater Toronto area and Montreal. It is also bounded by time in that all children are within a four-year age range (7 to 12 years). Additionally, the case required at least one parent to be concerned for their child’s health, to confirm that they can relate to the phenomenon being studied.

A multiple case study is a good fit for this research because it aims to attain an in-depth picture of the phenomenon, with intent on examining the complexity of the issue (Creswell, 2007). Stake (1995) and Yin (2006, 2012) are the leaders in case study methodology, each proposing approaches that are unique, yet have common ground (Baxter & Jack, 2008). This study mainly follows Yin’s (2009) proposed methods, complemented by insights from Stake (1995) and other case study researchers (Ayres, Kavanaugh, & Knafl, 2003).

Yin (2009) refers to six forms of data collection being documents, archival records, interviews, direct observation, participant observation, and physical artefacts. This study uses
interviews from parents and children as well as photo artefacts provided by the families. Researcher observation notes are used to complement the interviews.

**Participant Recruitment**

Five English-speaking families with one or two parents, of which at least one is concerned about their child’s weight, and one child between 7 to 12 years of age were recruited. This age range was chosen because the children are likely to be approaching a transitional period through which they gain independence and at which point parents are less influential compared to peers. Therefore, this age range is most suitable for the current study because it aims to capture a child’s health behaviours before this transitional period.

Measures about weight concerns are sometimes limited to being concerned about overweight (Jones & Crawford, 2005), as opposed to weight-related issues in general. Moreover, including boys is important because there is an over-reliance on studies focused primarily on girls. Current measures of weight concerns are primarily used for girls and may not be appropriate for boys (Helfert & Warschburger, 2011). The current study allows for these differences to be accounted for, because boys have been given the opportunity to openly voice their concerns, without being limited by specific questions around their appearance or weight.

Participants were recruited within the greater Toronto area and Montreal using three main strategies. First, letters were sent home with children from a participating school, and community organizations (e.g., Brownies, Boy Scouts, extracurricular clubs) requesting parents to volunteer (see Appendix B). Posters (see Appendix C) were placed in public areas such as grocery stores and community centers. Emails were sent out (see Appendix D) to personal connections and social networks with the poster attached, using the snowball sampling method. This study selected families of which a parent either has a weight concern for their family or expresses that
they communicate about health and weight with their child. This ensures that families do not feel labelled by the investigator, but are likely to relate to the topics being addressed in the interview. Families were offered $100 compensation for their time to participate in the study.

**Procedures**

The study procedures were approved by the Research Ethics Board at the University of Toronto (see Appendix G). Following recruitment procedures, interested parents contacted the lead researcher via email or telephone, at which time they were given a brief description of the study and answered a few questions. Once the parent(s) agreed to participate in the study, an initial meeting was scheduled for the researcher to obtain consent (parents; see Appendix E) and assent (child; see Appendix F) as well as to provide an overview of the study requirements – including separate interviews with child and parent (parents could be interviewed together or separately) and the provision of a camera for photos to be taken as prompts to aid the discussions. The interviews were scheduled, and the participants (i.e., mothers, fathers, and children) each received a generic digital camera with an empty memory card. Some participants chose to use their own digital camera. Parents and children were asked to take a minimum of five photos of objects and places that portrayed main barriers and enablers to weight management and health either within or outside of their homes. Photovoice is a method through which individuals can identify and represent themselves, their experience, and their community (Strack, Magill, & McDonagh, 2004; Wang & Burris, 1997). Using this method can be particularly helpful when interviewing children, assisting children to elaborate on “yes” and “no” responses by drawing upon photos of their choice (Harvey, Wilkinson, Pressé, Joober, & Grizenko, 2012). In this study, photovoice was not used as an independent source of data to be analyzed but rather as a tool to facilitate the interview conversations.
One week following the initial meeting, a half-day for each family was reserved for the semi-structured interviews that took place in a comfortable and private location. Participants were given the option to meet in their homes, a private meeting room in the Faculty of Kinesiology and Physical Education at University of Toronto, or another location of their choice. The parents were interviewed followed by the child(ren) individually. Parents were interviewed separately and the child(ren) from each family was interviewed alone. Observation notes were taken immediately following the interview meetings with the participants. Direct observations of the participants’ actions were taken to represent the investigator’s deliberate interpretation of what was observed (Yin, 2012). Once each interview was complete, each recording was numbered, labelled, and securely stored.

**Interview guide.** Guided by Bronfenbrenner’s ecological model, semi-structured interviews were conducted with each parent and child (see Appendices I and J). In order to examine various elements of health and weight-related challenges, the questions sought information addressing health and weight perceptions, and attitudes and beliefs about the social environment (i.e., family and community support). More broadly, the questions focus on how these families think, feel, and communicate about health and weight. The interviews began with a discussion about the barriers and enablers to health and maintaining/obtaining a healthy weight. This general question fostered a discussion of the photos that were taken and provided a starting point for the potentially more challenging questions about personal thoughts, perceptions, and feelings. It is important to note that throughout the interviews, the word ‘weight’ is used as a synonym for ‘weight status’. Weight refers to the total mass of an individual whereas weight status is more specific to whether an individual has excess body fat by categorizing them based on BMI (i.e.: a BMI of 25 to 29 is considered “overweight”). Although ‘weight status’ would be
a more appropriate description of what was being discussed, ‘weight’ was used in order to avoid biasing parents about these weight categories and labels.

The recorded interviews were transcribed verbatim. Elements of a naturalized approach were used for transcription (Oliver, Serovich, & Mason, 2005). For example, long pauses, overlapping talk, laughter, and response/ non-response tokens (i.e. *Uh huh, Mm*) were transcribed in parenthesis. These were used to assist the interpretation of quotes, and at times, infer how the participant was feeling (i.e., nervous, hesitant), or conversing (i.e., using humour). However, topics such as slang, geo-ethnic accents, and pronunciations were decided upon based on the context, in order to accurately represent and respect the participants (Oliver et al., 2005).

There are a total of 14 transcripts: 8 from parents and 6 from children. Parent transcripts were on average 14 pages (single spaced text, an average of 500 words per page), ranging between 10 and 20 pages. Child transcripts were on average 10 pages, ranging from 6 to 13 pages. Transcripts are available upon request.

**Data analysis.** A multiple-case study approach was used to conduct a within-case (i.e., within family) and across-case (i.e., across families) comparison. An analytic strategy used by Knafl and Deatrick (1990) and explained in Ayres et al. (2003) was used as a guideline. This strategy involves a comparison of individual accounts, across family members, within a family, and across family units. While the within-family analysis enabled an identification of unique factors discussed in any one family, the purpose of comparisons across family members is to identify variation and configurations of themes, through data coding, resulting in subthemes (Ayres et al., 2003).

Throughout the study, strategies such as developing a case description, thinking about rival explanations, and relying on theoretical propositions were used to facilitate data analysis
(Yin, 2003). Thinking of rival explanations of the relationships between the concepts within each case involved the investigator going beyond personal assumptions in thinking of various ways of explaining the case. This included noting inconsistencies during interviews, in which there were some contradicting statements. For example, a parent may claim that they never eat out or buy junk food, but further seeking examples of food outings and snack availability may contradict their general claims. Having an awareness of this led the investigator to seek out inconsistencies and collect more data to consolidate the information (Yin, 2012). Theoretical propositions involve proposing explanations to a set of relationships, based on empirical evidence in the literature (Yin, 2009). Pattern matching is an analytic technique that allows empirical propositions to be compared with predicted patterns (Yin, 2009). For example, observed parenting patterns within each family can be compared with predicted parenting patterns within the literature, based on situational factors.

QSR N-Vivo 8 software was used to store and organize the data. Preliminary data analysis took place simultaneously during the data collection, as per recommended for inductive research to refine questions and themes throughout the process (Merriam, 2002). A case report was written following the interviews for each case, and provided the foundation for thematic profiles of each case. This began by summarising individual interviews, identifying key aspects, resulting in coding categories and themes (Knafl & Deatrick, 1990). This is a critical component of capturing the uniqueness and richness of individual experiences (Ayres et al., 2003).

Following open coding through an inductive process, axial coding was used to group the open codes into meaningful subcategories. Axial coding is characterized by categories being linked to subcategories, and comparing these relationships to the data (Corbin & Strauss, 1990). Selective coding then created themes for the axial codes (Ayres, 2000). Following individual analysis, the
cases were analysed by comparing accounts across the participants of within each case to develop more themes and note discrepancies. Subsequently, family members were compared across cases (i.e. comparing the children from each case) to create subthemes. Finally, the cases were compared across family units to understand the similarities and differences in how these families perceive and communicate health and weight-related challenges.

Trustworthiness. Both Stake (1995) and Yin (2003) use a constructivist paradigm as a philosophical foundation to their approach. A constructivist philosophy acknowledges human subjectivity in the creating of meaning, and is grounded in the belief that truth is dependent on a person’s perspective (Baxter & Jack, 2008). Therefore, it assumes that there are multiple perspectives and allows for participants to construct their meaning of a phenomenon (Creswell, 2007). This viewpoint was critical to my understanding of the participants’ actions through their views of reality. This influenced the questions to be more broad in order for participants to build on the meaning of a situation (Creswell, 2007). Moreover, it required me to recognize my background (cultural, personal, and historical experiences) influences on interpreting the participants' experiences, and position myself through making my perceptions known to both myself and others (Creswell, 2007). This involved reflecting on personal views of health and weight, and considering personal weight-related experiences that contribute to how I construct meanings to these topics. Moreover, from an epistemological standpoint, constructivism believes that knowledge is created in the interaction between the participants and investigator, also referred to as “created findings” (Guba & Lincoln, 1994, p.109), further highlighting the importance of having an awareness of one’s views and the potential impact that it may have during the interviews.
Furthermore, this is in line with the understanding that the researcher is the key instrument of the study and must thus be reflexive throughout the data collection and analysis process (Creswell, 2007). This encompassed understanding my personal history and experiences. Specifically, I am 25 years old and have never struggled with weight status. I was a competitive collegiate runner for 5 years. Being an athlete has exposed me to an environment that is at times focused on body composition and weight status. In turn, I have experienced insecurities of feeling like one of the larger girls on a start line, but have never experienced weight stigma. I was also aware of my knowledge of these topics based on the literature I’ve reviewed (i.e., consequences of weight-related issues, weight talk and weight stigma, parenting and modelling of health-related behaviours). My knowledge affected each part of this study from choosing this topic, constructing the interview guide, conducting the interviews, analyzing and interpreting the data, and drawing final conclusions. Therefore, this study is influenced by the theories and research I was aware of throughout the study. I am also aware that there are many existing theories to health and weight-related issues, family communication, and parenting practices that were not considered in the current study. Steps were also taken to increase credibility, such as avoiding extrapolations of the data without proper support, and considering rival explanations (Yin, 2009). In addition, avoiding all statistical generalizations and making analytic generalizations when applicable helped maintain credibility. When commonalities were found across cases, analytical generalizations were not made to the population, but rather to the specific types of families within this study (Yin, 2003; 2012). Stake (1995) implies that generalization is not a crucial component in all research. He further suggests that a commitment to generalization has the danger of distracting the researcher from the actual case. Protocol recommended by Yin (2009) in ‘maintaining a chain of evidence’ in order to demonstrate construct validity were
followed. This process outlines the practice of adequately keeping track of all evidence, allowing a reader to see the relationship between the content of the initial study questions through to the final case study reports. All documentation and procedures were adequately provided and described.
CHAPTER 4

Results

The five families who participated in this study are presented as separate case study units. They each share their lived experiences, as well as some commonalities in how they perceive health and weight challenges, and how these topics are communicated within their family. Each family is summarized based on the information that they’ve disclosed through meetings and semi-structured interviews. Following a summary of each family’s background and their perceptions of health and weight, the across-case findings of each theme and subtheme for all parents and children are presented. Participants are identified by a pseudonym, family number (1 to 5) and role (‘M’ = mother, ‘F’ = father, ‘D’ = daughter, ‘S’ = son)

Case Studies

The case of family 1. Family 1 consists of a single mother, Maria (F1M), and daughter, Keisha (F1D) age 11 years, living in a large metropolitan Canadian city. Maria emigrated from the Philippines to Canada to build a life for her family. She left her daughter Keisha, who was 3 at the time, in the Philippines until she could get settled in Canada and Keisha was raised by her grandparents. At age 8, Keisha was granted Canadian citizenship and she moved to Canada to be with her mother. Maria works two jobs to support her daughter and her parents back home. She plans on moving to Alberta next year to give her daughter her own room and space to be active as they currently share a bedroom in their apartment. Maria and Keisha both repeatedly emphasized time and finance as barriers for their family. Maria (F1M) says,

“And of course money; ‘cause I’m a single mom so I don’t have enough money to send her to skating and to do a part-time job, to go with her every day. That really is hard.”
I’m supporting my parents back home as well so I have to do two jobs so that’s really a big challenge for me […] the problem is I don’t have time to bring her somewhere”

Her daughter Keisha echoes these same barriers:

“I lost weight here [in Canada] and I went swimming and I don’t go anymore because sometimes my mom doesn’t have time […] but we don’t really have time because my mom always has work […] Sometimes I want to dance in classes but then she said it’s yeah we have to pay for it but then I don’t want to pay for it because I want it to be free. I don’t like to waste money”

Maria says she is currently and has always been normal weight but is now gaining a little weight because she has little time for herself. She perceives her daughter to be overweight and admits that this upsets her. She is concerned about her daughter’s weight, particularly because of her high triglycerides reported from her doctor. She cooks a lot of homemade fresh food, primarily with rice, meat, and vegetables, but shows some photos of unhealthy Filipino foods that they occasionally consume.

Maria shared experiences of weight stigma that her daughter has received from her friends and claims that Keisha prays to be skinny. She acknowledges making comments to her daughter in attempt to help her lose weight and shares painful experiences that her daughter has faced because of her weight. Keisha is aware of her mother’s perceptions of her and says “[Her mother] feels sometimes sad because she wants me to be healthy and she doesn’t want me to end up obese […] She said I have to lose weight because I’m almost overweight”. She says, “I’m a little bit big, too big” and confesses being insecure about her body and having a mother with a body she admires. She reported feeling upset regarding how others perceive her mother:
“When I was with her friends they always call her sexy because she’s really fit and some boys sometimes check her out and it really [annoys] me…”

Keisha also admits she does not enjoy many vegetables, loves McDonalds, and has a hard time not giving in to her cravings. Overall, the family has a lot of conversations about weight and both mother and daughter have a shared goal of Keisha losing weight and being healthy.

The case of family 2. Family 2 consists of mother Tina (F2M), father Jomo (F2F), and three children: Isaac (F2S) age 12, Estelle (F2D) age 11, and Suzy age 4 (not interviewed). For the purpose of this study, the parents were asked to focus on Isaac and Estelle. They live in an apartment in a large metropolitan Canadian city. Tina and Jomo are originally from Kenya but have been in Canada for over 2 decades. These parents are currently separated but were both happy to participate in the study, as Jomo is still very present in the lives of the children, who are not yet aware of this separation.

Jomo says he is very healthy; he is active, watches what he eats, and quit smoking years ago. He also says he is normal weight but wants to lose a little more weight. Both Tina and Jomo explained traditional homemade dishes that their family eats. Tina is currently normal weight but has lost over 60 pounds in recent years, going from 207lbs to 140lbs. Before coming to Canada, she weighed under 100lbs and says she still has some weight to lose but is so proud of herself. She suffers chronic pain and sleep apnea from a car accident in 2008 but is able to exercise by walking slowly. Changes to her lifestyle have carried over to her children as both parents enforce healthy eating and physical activity (PA) in the home.

Tina and Jomo both believe that their son and elder daughter are not overweight but ‘a little heavy’, and take measures to help them lose weight. Tina says, “We’re really very
controlling. I don’t know how he’s chubby. He doesn’t eat too much”. She worries about them becoming diabetic. Tina and Jomo believe that they are responsible for their children’s future health and express that their parenting behaviours are to ensure that their children have a good future. They were highly focused on structure and regulation around diet and exercise.

Isaac and Estelle are aware of their parents’ perceptions about their health and weight and comply with their weight management tactics, such as following regulations to eat a lot of salad and walk, skip, or dance for daily exercise. Estelle says she thinks she’s a little too big and should lose a little weight. She took a photo of her skipping rope and said, “I skip with this because it’s fun and it makes you sweat so then when you sweat you’re going to lose weight”. She also thinks her brother needs to lose weight and confesses that she has felt embarrassed of him at school because of his poor posture. Isaac says he likes his size but talks about being teased a little at school. He says that it does not really bother him because he knows it’s not serious and he feels he is able to fight back with insults of his own. Estelle recognizes that her parents have been on good diets that are helping them “be better” and Isaac says that they are really strict about health.

The case of family 3. Family 3 consists of a single father Ezra (F3F), and his 8-year-old son Tyler (F3S) living uptown in a large metropolitan Canadian city. Ezra is a graduate student in a health discipline and is very knowledgeable of PA and health. Being a full-time student, his parents were primary caregivers for the first five years of his son’s life. Although Ezra does not have any concern for his son’s weight, he does have a general concern for his health. Specifically, he worries that the habits his son developed under the care of the grandparents will follow him in life. Ezra often revisited the idea of making Tyler mindful of health by making him aware of health holistically, being inclusive of psychological and spiritual health. Ezra also says
that helping his son be healthy involves him signing his child up for teams and creating a fun atmosphere. He explains,

“Uh, it’s almost like I plan more for him than I do for myself…. But even before that- like the real planning ahead comes at the supermarket”.

Ezra was extremely articulate about general and personal health, his philosophies, and weight perceptions. However, Tyler had very little to share and used a lot of sarcasm in the interview (i.e.: saying he thought junk food makes people healthier and his father needs more junk food to be healthy). This reaction may have been a result of Tyler’s shy disposition overall.

Although Tyler jokes that playing video games is healthy exercise for his thumbs, he does enjoy a lot of sports and playing with his father. Although weight is not spoken about with his father, Tyler does see his grandmother using an app to log her food and exercise in her attempt to lose weight. He explains that it generates how many calories she is allowed, and imitates his grandmother saying, “I lost 1 pound!” Tyler essentially took about 100 photos in the grocery store and went through each one explaining his likes and dislikes. Ezra says Tyler is a picky eater and is trying to equip him with good eating habits.

**The case of family 4.** Family 4 consists of mother Kim (F4M) and father Stanley (F4F) who have been married for over 20 years, and 8-year-old daughter Natasha (F4D) living downtown in a large metropolitan Canadian city. Kim is from Winnipeg with a Ukrainian background. She is now a stay-at-home mom and Stanley recently graduated from his MBA after returning to school for three years part-time. He noticed an energy decline in himself and looks forward to getting back into an exercise routine to regain his energy. The time and energy he devoted to his MBA had an impact on his family’s life, but they were all supportive of him. No family members
perceive themselves as being overweight. Both parents say they’ve gained about 10 pounds in the last decade, which they’d like to lose. Kim has had many neck injuries in the last several years and does not get a lot of exercise, but considers herself pretty healthy. She says her family should prioritize walking over taking the car,

“We’re closer to school [after moving], so there’s no reason not to walk to and from... It’s just up on the hill so it’s only about 15 minutes to walk and it’s steps, so the steps could really- if I had walked all year I wouldn’t be as over- as heavy because the steps are killer”

She says that they walk a lot on vacation because they don’t have a car, but the car is convenient when pressed for time. Kim says her daughter sometimes asks if they are walking to school and she often responds, “Well, you’re already late for school, so no, we’re not walking”.

Kim does not have a weight concern for her daughter but is worried that she is not ‘as physically fit as she could be’ and looks like she is developing cellulite behind her thighs. She says she is concerned, as all parents are, but particularly with having a girl because she is worried about giving her a bad body image perception. She shares that there are many other health risks within their extended family that she is mindful of, such as cancer, depression and dementia. Although she worries about her own health, she says,

“I have no control over it. You do the best you can... The healthier you are, the better you eat, the more active you are; it all plays a part in your physical, mental, and overall wellbeing, right”

Natasha is involved in many activities (e.g.: yoga, swimming, fitness class, tap). She and her friends converse about weight and she has a unique conceptualization of weight categories for girls her age, with the belief that 60 to 70 pounds is the ideal. She said she feels pretty good
about her weight but adds that she is “maybe a little, um a little heavy maybe” in an uncertain voice. When probed, she explains,

“Well (pause) just a lot of my friends are a little less weighted than me so I don’t exactly think that I’m a little heavier than them, I just don’t, you know...” and explains, “Well we probably talk about it ‘cause we’re wondering what each other weighs. And probably we want to know how much someone weighs more than us or less than us”

Despite these comparisons, she did not report feeling unhappy about her weight or size. She has a strong curiosity to know what is and is not healthy in monitoring her eating habits. Stanley agrees that Natasha is good at regulating her eating but thinks she should spend more time outdoors.

The case of family 5. Family 5 consists of mother Kate (F5M), father John (F5F), 7-year-old son Christopher (F5S), and 4-year-old son Matthew (who was not interviewed). They live in a suburban city just outside a large metropolitan Canadian city. Kate works 4 days a week, giving her more time to prepare the meals and care for her sons. John was recently promoted at work and holds a stressful and time-consuming position. John thinks he is in good physical health but needs to work on his mental wellbeing by diminishing his stress. Kate sometimes tells John he needs to eat more but John wants to maintain his weight or lose a few pounds to feel lighter when running and cycling. Kate says she would equate her health to a 7 out of 10 because she tries to eat well, sleep, minimize stress, but could be more active. She wishes she was about 10 pounds lighter as she was before having children but doesn’t want to prioritize weight loss as much as other things in her life and doesn’t have any “hang-ups” about it. She also
feels alright for her age and in comparison to her peers. Christopher is happy with his weight and body size saying, “I feel it’s good. Not too big or not too small”.

These parents are highly engaged with their children. They agreed that John’s Italian background was apparent in some of the family’s eating habits and perceptions about food. No family member has ever been overweight and living a healthy lifestyle is a priority. John described himself as a health fanatic and was emphatic about wanting his son to have a high level of knowledge about what it means to be healthy. Both John and Kate acknowledge John to be the stricter parent when it comes to healthy lifestyles. John says Kate is more of a “diplomat whereas I’m more the dictator”, in a laughing voice. John also acknowledges that he does not understand how individuals allow themselves to become overweight. He adds that it bothers him and he is aware it is wrongful thinking and tries to keep those opinions to himself.

Christopher took photos of himself on his bicycle, his sports clothing, meat, milk, and his mother as his health facilitators. Christopher loves exercising (e.g.: running, golf, biking, baseball, swimming). He appears to be very confident about his abilities in different sports and follows sporting events (e.g.: Tour de France cycling) with his father. He says,

“I want to be an athlete when I get- when I grow older. [...] The reason I want to be an athlete is because I love doing sports, sports, sports!”

Across-Case Analysis

Based on the five family case studies (i.e., including eight parents and six children), the following main themes were produced: facilitators and barriers, communication support, and role-modelling and engagement support.
Facilitators and barriers to health and weight. All participants were asked to take photos of facilitators and barriers to their health to allow them to reflect on their environment, and to stimulate conversation within the interviews. Table 1 (see Appendix K) presents the photos taken by each family member, representing their perceived facilitators and barriers to health and weight. All parents reported how they feel their family’s health is supported both within and beyond their family environment. They discussed both challenges and facilitators, which included environmental, behavioural, and personal factors, as well as community support to maintaining their own weight and health and that of their children. Mothers reported over twice as many challenges and made twice as many references to health and weight challenges compared with fathers. Most children (n=4, 67%) did not directly acknowledge challenges when asked if there was anything that made it more difficult for them to be healthy. Nonetheless, children often highlighted many challenges indirectly throughout the interviews and were consistent with those reported by their parents. Children largely took photos of foods that they consider healthy or unhealthy in their environment. These children appeared to dichotomize specific foods as “healthy” or “unhealthy” as well as an interest in whether certain foods were healthy or not for some. Along these lines, there were several photos of fruits, juices, salads, and milk as health facilitators. Children also photographed tools and equipment that are health facilitators, such as personal hygiene products (e.g.: soap, toothbrush, toothpaste), bicycles, sport clothing, and a jump rope. For parents, the photos were helpful prompts, but many of their main challenges were later revealed and identified in the family case descriptions. For example, Maria (F1M) stressed that time and finance are her largest barriers, but did not capture this in her photos.
**Communication support.** The following theme is about how families communicate to one another about health and weight. The main sub-themes are communication among caregivers, conversations with children/parents, and communication with others, through which many types of interactions will be highlighted and summarized.

**Among caregivers.** Parents discussed their communication with their spouse or other primary caregivers (i.e.: grandparents). Tina says that her and Jomo (F2) mostly speak about their son Isaac needing to lose weight, and she adds that their daughter Estelle is not skinny either (F2M). Jomo says his children are very healthy but specifies that Isaac is a little overweight. Ezra and Stanley (F3F; F4F) report their conversations with other caregivers to be about their child’s eating habits and portion fluctuation. Kim (F4M) recalled our initial meeting before the interviews, “It’s interesting that one of the example questions is, “How do you talk as a family?” We don’t really talk as a family”. I asked her if she spoke to Stanley about her concerns for Natasha’s body weight and she replied that she has mentioned it to him but they did not get into ‘a discussion’. She added,

“I think I’m just more conscious about it because I have it and she has my family’s build and I’m just like, more conscious about it and more concerned really. She’s 8. I don’t know if you could get cellulite [fat beneath the skin with a bumpy appearance] that early”

Regarding each other’s health, she again says, “We don’t even talk about our health actually”.

Some of the parents support or criticize each other’s health or management strategies. Tina (F2M) is happy that Jomo no longer smokes and rarely drinks to model positive behaviours for the children. Stanley (F4F) is proud of Kim for setting an example of eating breakfast, which she did not do early in their relationship. Kate refers to John as an “extremist” in his healthy
habits, and she tries to include more moderation in her children’s habits. John (F5F) thinks that Kate is “in good shape” for her age as well, but would like her to exercise more to avoid future “aches and pains”, which has been difficult for Kate to hear. In indirect conversations, Kate (F5M) admits to teasing John about needing to put on weight, adding that he teases back that she needs to lose weight. Kate (F5M) was asked about discussing the children’s health with husband John (F5F), she says, “Yeah, I think maybe not directly but sometimes more about what they’re doing, you know” and goes on to explain how they enforce one activity per school term. John (F5F) says there is a lot of negotiation with Kate (F5M) about giving the children treats. He says Kate tends to be more lenient and forgiving with the children, whereas he has a “my way or the highway” approach. Kate (F5M) says that if John ran the menus it would be more of a military approach. John (F5F) rationalizes his position by explaining:

“I’m hoping if I push them over to one side it won’t swing completely back to the other side whereas if they get bad habits when they’re young it’s going to be harder to break”

But he agrees that he can be extreme and says he knows she is right in having some leeway and tries to be more lenient.

For the single parents (F1; F3), their parents’ support in helping raise their children was fundamental. However, both Maria (F1M) and Ezra (F3F) voice that they were not pleased with their parents’ rules concerning their child’s eating habits (e.g.: not enforcing water (F3F); not enforcing vegetables (F1M) and are now trying to create new habits for their children. They also speak about trying to help their parents be healthier.

Caregivers reported communicating with each other about each other’s health, and their child’s health, weight, and habits. Sometimes they disagree but often have a united front with the
children. Many caregivers report that there are a lot of indirect conversations about health, or some topics that are entirely not discussed. When grandparents were primary caregivers, there were more conflicting parenting practices, but that is no longer an issue since the single parents are now primary caregivers.

**Conversations with child or children.** Conversations with children included a wide array of content and context. Both parents and children reported conversations about: child resistance, informative conversations, negotiation or rewarding, non-negotiation, and preaching or telling.

Three parents (F1M; F3F; F5M) provide examples of their children being resistant to parenting practices by not agreeing to their rules (F1M) or being reluctant to try new foods or activities (F3F; F5M). The word “disgusting” came up a lot with the children and with parents imitating their children. Kate (F5M) imitates her children at the dinner table saying, “Oh but Mommy it’s disgusting! [...] Don’t do this again!” while pouting and occasionally gagging. Kate shares that if there’s no real gagging, they must finish their plate. Kate’s son Christopher (F5S) also discusses voicing his opinion about the foods he is eating, but usually complies in the end. Tyler and Isaac (F3C; F2C) also admit to disapproving certain rules. Tyler (F3S) for example, sometimes crosses his arms at the table and strongly opposes to eating certain foods saying, “I don’t want to eat a tomato or a mushroom or any of that other stuff that’s disgusting. It’s all disgusting!”

Some parents and children report informative conversations that are specifically educational, information seeking, or awareness rising. Half of parents provide examples of trying to teach their children about aspects of health, which include the consequences of being overweight or smoking (F2M), the importance of eating well (F5F), and the benefits of various
foods (F5M). Kate (F5M) shares different ways of informing her son using the Internet and child appropriate analogies. Estelle (F2C) says her parents tell her she will live longer if she eats healthy. Kim and Stanley (F4) both say their daughter Natasha asks if something is or is not healthy, and Natasha confirms that she gets curious about the healthy nature of foods. She says, “I want to know if it’s healthy or not so maybe I could eat it more or less”. Tina (F2M) says her son Isaac doesn’t talk about his weight but sometimes asks her, “Am I big?” to which she responds, “Isaac, you need to lose weight”. When Isaac was asked how his parents felt about his weight, he said, “They care a lot”, and he also pointed out that he doesn’t really like that his parents care so much about his weight but does wish he was a different size. Isaac also says that his parents especially talk about food and exercise, saying “Don’t eat junk food so often”, and “Don’t sit down so much”. He added that he didn’t really care that much if it was from his mom, and he usually heard this type of commentary from his dad.

Many conversations between parents and children involved negotiating or rewarding children for their compliance. Specifically, five of the eight parents provided negotiation or reward examples such as offering a reward for eating a certain food or engaging in PA. John (F5F) enforces a rule that if his children want something unhealthy, they must eat something healthy. Some children (n=3) discuss trying to negotiate to stay at the park longer or play more.

All six of the children spoke about what their parents tell them or preach about health and/or weight. Half of parents distinctly spoke about telling their children what to do to be healthy. Most report telling their child to eat vegetables, fruit, and do exercise. Jomo (F2F) says that he sits his children down and discusses their health. He says they do not get frustrated because he tells them in a nice way. However, his son in particular does report getting frustrated
about his father’s parenting concerning his health. Isaac (F2S) imitates his father’s preaching saying, “Don’t eat junk food so often...don’t sit down so much”, while sister Estelle imitates her father saying, “Eat salad, do skip...It’s good for you, so eat it” throughout the interviews. The children repeatedly refer to their father’s strict diet and PA regulation. Isaac (F2S) admits that this bothers him and says that it makes him want to talk back. He adds,

“Sometimes I deny [his rules]. But then again, he’s my dad so I just follow them. I keep whatever I don’t want in my head”

Alternatively, Ezra shares some humour in interacting with his son about health. Tyler jokes about enjoying watching his father eat salad, and Ezra will joke about buying Tyler a surprise and will put a pineapple in his room. Stanley (F4F) says his daughter also jokes with him about his weight by pointing at his stomach saying, “You’re getting a little chubby”. He agrees with her.

Half of parents (F1M; F4M; F5M; F5F) and two children (F3C; F5C) also discussed concealing or avoiding communication about weight and health. Children simply responded “no” when being asked about communicating with caregivers. Parents provided more contextual examples of this. Maria (F1M) avoided speaking to her daughter about a weight-related experience because she “didn’t want her to hurt”. Kim (F4M) currently conceals her psychiatric therapy from her daughter, but says she will share this when she’s older because it runs in the family. Also, Kim (F4M) never allows her daughter to see when she skips meals to avoid setting a poor example.

“[...] Which I don’t tell her when I don’t eat because that’s not a good thing to tell her, right. Unless I’m, you know, really starving after school and say, “Oh I’m really
hungry” and she’ll say “why?” and I’ll say, “I didn’t have time for lunch”. But I don’t tend to say that very often because I don’t want her to get the idea that it’s okay to miss lunch”

John (F5F) admits he has a negative perception of overweight people but tries to censor his weight-related comments from the children so that they do not adopt these views. He is also discrete if/when he makes weight-related comments to his wife,

“Like if I think Kate should lose a pound or two I won’t necessarily bug her about it in front of the kids because I don’t think it’s right”

Christopher (F5S) did not report any weight-related comments or being aware of his father’s views.

Five parents describe directly addressing their children about weight. A few comments were about the side effects of being overweight (F2F; F5F), and John (F5F) told his son Christopher to “Imagine if you would have that much weight” for him to conceptualize the hardship of things like running and biking. More personally, Tina (F2M) also makes direct comments to Isaac saying, “You need to lose weight”. Daughter Estelle (F2D) says her father will tell her to lose weight for her future health and when she asks for a treat at the store he says, “No. You want to lose weight, not gain weight”. Maria (F1M) feels badly about the way she has spoken to Keisha like, “Keisha, you didn’t listen to your Mommy. That’s why so look at you now” or telling her that if she eats properly she’s going to be “sexy like Mommy”. Keisha says that when her mother talks about her weight she feels annoyed and insecure.

**Communication with others.** Five parents (F1M; F2M; F2F; F3F; F5F) share interactions with their friends, partners, and other family members. Maria (F1M) and Ezra (F3F) try to
encourage their extended family to be healthier. When asked about others’ responses to health suggestions, Ezra (F3F) says,

“If I make suggestions my dad [grandfather to Tyler] will kind of be like, ‘leave me alone’ attitude. My mom [grandmother to Tyler] will kind of listen but do her own thing. Like I said, she’s got to come up with her own conclusions and if you suggest things she won’t listen at all”

Tina (F2M) says that when she had gained a lot of weight, her friends were shocked. She imitated their reactions: “Oh my God, you have changed because you have kids. That’s okay, the most important is being healthy”. She explains, “They think they encourage me, but I still feel it” (F2M), referring to her discomfort with their focus on her weight. Now Tina says her doctor tells her she should do commercials to showcase her weight loss. Alternatively, Ezra (F3F) says he has some relatives that comment, “Oh, you’ve lost weight” every time they see him. This bothers him because he is a healthy weight, has not lost weight, and repeatedly tells them this.

Ezra (F3F) also spoke about conversations he has with his partner,

“I know my girlfriend has issues with the scale itself. […] I didn’t realize it was an issue for her because I thought she was “healthy” on the outside, and I didn’t realize that psychologically, it bothered her so much. You know, to the point where I was like, “If it’s bothering you so much, keep the scale in the- throw it away, put it in the basement. Don’t check it everyday because, like I said, it’s also psychological and you don’t realize how people think even though you see how they may be physically, and that’s hard”

Three children (F1D; F2S; F5D) spoke about interacting with friends. Keisha (F1D) and Isaac (F2S) have had friends make fun of their weight. Keisha (F1D) was the only child to speak
about receiving weight-related comments from her mother and extended family, in addition to overhearing comments about her weight. She feels insecure about her weight and doesn’t appreciate people talking about it. When her friends are upset with her, they also target her weight:

“\textit{When me and my friends have a fight my friends spread rumours about me being very fat and very ugly and sometime they say that nobody likes me and everybody hates me and stuff}”

Maria (F1M) says Keisha’s friends say she is “sexier” than her daughter. Maria (F1M) says her daughter prays every night to be skinny and hopes to return to the Philippines to show her family how skinny she is. Maria says that a few of Keisha’s school friends, her cousin, and Facebook friends have called her “fat”. Keisha (F1D) says, jokingly, that her extended family has a Filipino nickname for her that mean “chubby” and “fat”. Isaac (F2S) says people comment about his weight at school but they’re just joking around and don’t mean it. “\textit{Friends at school; but I already know they’re just joking}”. Finally, Natasha (F4D) shares that her and her friends talk about and compare weight:

“\textit{Well we kind of talk about it and we say like, we weigh 80 something pounds and someone weighs 50 something pounds, then we kind of see who weighs the most}”

In sum, communication about health and weight took place among caregivers, between caregivers and children, and with others such as friends and extended family. Some caregivers report discussing each other’s health, as well as support and criticism for health management strategies. Conversations with children included child resistance, or centered on information, preaching, concealing information, or addressing their weight. Finally, conversations with others
took place about parent and child health, as well as addressing some participants weight, or weight in general.

**Parenting and role-modelling.** All parents feel that they influence their children through modelling health behaviours and engaging with their children. All children perceived their parents to be generally healthy and several children say their parent’s body is a good size (F1D; F3S; F4D). Some children commented on their parents’ diet. Keisha (F1D) says she is influenced by her mother’s eating habits “because when my mom eats chocolate, I eat too. And I don’t really like that...” Estelle (F2D) says her mother always eats salad and recalls her mother dieting, “So she got more skinnier. My dad got into a diet too and he got better”. Estelle says her dad is a good size and predicts her mother will be a good size in saying, “By the time I’m like probably 12 or 13 she might be in a good size”. Estelle also explains why her father is a positive role model:

“Cause whenever he does stuff, we would want to do it. ‘Cause I think whenever parents do stuff it’s fun for us to do it so he does that sometimes. ‘Cause he skips, my dad skips up to 500 so he tells us to try to beat his record so then, so we do that”

Parents explain being aware of their children looking up to them and doing their best to set a good example. Most parents (n=6) report seeing their child model their behaviours or describe how they choose to model behaviours for their children. Ezra (F3F) remembers Tyler imitating him weight lifting when he was little, by picking up the 5 pound weight and saying, “Look Daddy, I can do it too”. He says that he sees him modelling his behaviours in other sports, but not when it comes to his eating habits. Tyler (F3S) confirms this by saying his dad is awesome and adding, “I want to be exactly like [my dad], only without the tomatoes and
mushrooms and stuff”. Maria (F1M) recounts her daughter saying she was going to skip her dinner after seeing her mother not eat:

“Sometimes if I don’t eat dinner she doesn’t eat too. She says, “Okay Mommy, I’m not going to eat. I’m going to escape my dinner tonight” [I respond] Okay, what you going to do? “I’m just going to drink water”

Some parents (n=5) feel their personal health behaviours influence their child. For example, Stanley (F4F) says his daughter doesn’t see him and Kim eating unhealthy food:

“I don’t see, like I say, I might be glossing it over but I don’t think we eat a ton of junk therefore I don’t think that, I don’t think she sees us eating a ton of junk food or always needing dessert after dinner”.

On the other hand, his wife Kim (F4M) says her snacking and cravings influence her family because she is the shopper, “So if I’m feeling a craving for salt and vinegar potato chips, guess what, salt and vinegar potato chips for the house!” She also says she introduced her daughter to treats like Slurpees and Starbucks. Jomo (F2F) says he quit smoking to avoid his children from smoking in the future as a result of seeing him smoke. Kate (F5M) says her sons tend to be a little underweight and if anything, and she is feeding them good calories by adding healthy fats like olive oil and peanut butter to their diet. Finally, John (F5F) shares how he believes his modelling will impact his sons:

“I think if we show them both physically to be active and what is good in terms of food like what’s healthy, what’s not healthy, what’s just food, what’s- I think if we show them and then they’ll be able to adopt hopefully our beliefs”
His wife Kate adds that exercise is more like a chore for her but John makes it fun for the kids, which she says is the whole point.

Parents support their children by accepting their activity choices (n=6), encouragement (n=7), and engagement in activities with them (n=7). Regarding acceptance, parents voice being careful not to force their kids into things they do not enjoy. John (F5F) says,

“I don’t want to push, necessarily, my beliefs onto him but I mean I’d love it if he were to bike or to cycle or to run on a regular basis because I think it would be healthy but I’m not going to push him because the last thing I want to do is push him to the point where he doesn’t want to do it because he feels forced to do it”

Maria (F1M) says she encourages Keisha (F1D) to eat healthier and to do things like taking the stairs instead of the elevator. Ezra (F3F) talks about making it fun for his son and shares his views on motivation:

“If you try to motivate people for other reasons than their own personal enjoyments, I feel like they’re less likely to adhere to those types of things. Sometimes like, yeah sure, external motivators can get people going or get a kick-start but if that’s their only motivation, good luck retaining it in the long-term. I find that finding things that make it fun for people is one of the most important things and I think that that’s one thing that I did very well with my son in getting him really active and making sure he gets the right amount of exercise. I do fun things with him and then after I point out that it’s exercise, and that’s the order of events”

For both of these single parents (F1; F3), their own parents’ support in helping raise their children was fundamental but also has introduced challenges to their children’s health. Both
Maria (F1M) and Ezra (F3F) were not pleased with their parents’ more lenient rules concerning their child’s eating habits and are now trying to create new habits for their children. Keisha (F1D) also attributes her weight to her grandparents’ lack of enforcement to eat healthy. Alternatively, Tyler (F3S) does not report differences between his father and his grandparents’ regulations.

Stanley (F4F) encompasses both acceptance and encouragement in his statement:

“I want to introduce her to these things because there’s nothing better than playing a team sport and so, I always did that and I thought it was great to be a part of a team and I will encourage her to be involved in those sort of things and if she wants to take it up, great. I’m not going to force anything on her”

Parents reported engagement with their child mainly by doing PA together. Most children reported their parents’ either being encouraging (n=3) and engaging (n=4) in helping them be healthier. The children did not provide profound detail about their parent’s encouragement but shared that they help them eat healthy and exercise. Natasha (F4D) says her mother asks her what she wants for lunch and asks if she wants fruits or vegetables added. She also says that when she’s looking for a snack her father encourages her to get a yogurt or another healthy snack. Estelle (F2D) says that she asks her mom to go walks on the weekends, which is sometimes a family event. Tyler (F3S) says, “I only play outside with him”.

Several family members across the cases also described the importance of getting the child(ren) involved in either aiding with purchasing and preparing food (n=5), and being provided with choices on what to eat and do (F3F; F4M; F5M). Christopher (F5C) reported
limited involvement, which is consistent with his mother’s account as she specified that he does occasionally help out but shows less interest than his younger brother in the kitchen.

Summary

To conclude, all families shared some of their background, experiences, and perceptions of health and weight. There are many levels of support within and beyond the family. All participants speak about communication among caregivers, with children, and with others. Finally, parents support their kids through their own role-modelling and engagement. Generally, there were consistent perceptions across child and parent. All parents want their children to be healthy and to develop their own ways to overcome obstacles in reaching that goal. The kids spoke a lot about their parents’ role in helping, disciplining, preaching, encouraging or engaging with them in positive health behaviours. Throughout these case studies, family member accounts were generally consistent among family members and somewhat varied across families, demonstrating the complexities and commonalities of health and weight-related experiences.
CHAPTER 5

Discussion

The current study set out to better understand how families discuss and engage with each other about health and weight. The within-case analysis highlighted families’ experiences and perceptions of their health and weight. The across-case analysis highlighted the importance of communication, parenting and role-modelling among the families.

All participants were able to identify areas through which their health and weight maintenance is supported and hindered within and beyond their family’s home through personal factors and behaviours, their community, and environment. Consistent with the literature, issues of time, cost, and accessibility were among the challenges of maintaining child health (Bentley et al., 2012; Gordon-Larsen et al., 2004; J. B. Moore et al., 2010; Reichert, Barros, Domingues, & Hallal, 2007). Interestingly, mothers in the current study reported over twice as many challenges and made twice as many references to health and weight challenges compared with fathers. This could be due to the fact that these mothers identified more as the primary caretaker (either by being a single parent or currently the parent that spends more time in the home. Identity Theory (Stryker, 1968) suggests that individuals hold positions that are linked to both societal expectations and behaviour roles (Adamsons, 2010). As such, mothering is deemed to be a role with very clear responsibilities while the role of fathering is a social construct that is constantly changing and much less established (Doherty, Kouneski, & Erickson, 1998). Or perhaps mothers, or women in general, perceive more challenges to health and weight management due to more societal pressure for them to maintain a thin ideal.

Children’s reports of barriers to being healthy were in line with the parental reports. The literature on perceived health barriers among youth include convenience, taste, time, social
factors, preference for indoor activities, and lack of energy and motivation (O’Dea, 2003). Walia and Leipert (2012) used photovoice with rural Canadian youth and reported similar facilitators to health and lifestyles, including accessibility, as well as similar overlapping facilitators and barriers, including weather, time, and finance. Sonneville and colleagues (2009) also discussed challenges that families face when attempting to follow obesity prevention programs. Similar to the current study, they highlighted that there were many similarities across families however it is also important to highlight the distinct challenges within families. As such, researchers must stress the importance of the “context of family priorities” in developing health programs (Sonneville, La Pelle, Taveras, Gillman, & Prosser, 2009). A family-centered approach may account for what each family recognizes as their barriers and use it as a platform to build solutions and strategies that they will deem relevant and important to them while approaching health goals.

In the current study, there was emphasis placed on communication around health and weight in the families and their surroundings. Each family shares their health and weight communication among caregivers, between caregivers and children, and with others. Caregivers reported speaking about their children more indirectly, and some mentioned that health is not explicitly addressed among them. Some parents discussed having different parenting styles than their spouse and compromise among them. Parents who have similar parenting styles tend to report their spouses parenting more accurately (Winsler, Madigan, & Aquilino, 2005). In some cases, parents concealed information from their kids, and in a few families, parents were very direct about their child needing to lose weight. Parents could benefit from knowing which types of conversations are helpful or harmful. Parental conversations about weight, particularly with overweight adolescents, are linked to negative outcomes. Conversely, conversations about
healthy eating alone is linked to reduced unhealthy weight control behaviours (Berge et al., 2013). Parental discourse about health is often framed in “in the language of the adult world of dieting” (Backett-Milburn, Wills, Gregory, & Lawton, 2006), possibly making it less relatable for children to grasp with how they tend to conceptualize food. In the current study, some families voiced the need for interpersonal strategies in how to speak to their child about weight. Therefore, some parents may benefit from resources on not only what to say and what to avoid saying, but also how they should frame these discussions in a relatable, child-friendly manner. Other families are in need of support at the community and institutional levels. Based on Neumark-Stzainer’s model of weight influences, there are a multitude of influences at varying levels. Understanding that there are individual, family, peer, societal, and communal influences can be complex but can also help reassure parents that there are many avenues in which their family can make positive changes. As a resource for parents, Neumark-Stzainer presents practical solutions for influences at each level. The model may also help practitioners working with families identify areas that are within their control to change. For example, if a family identifies the sociocultural norms around the body in the media to negatively impact their children, they can be given resources to be positive role models and avoid promoting these ideals in the family environment. If a family is looking to increase communication with their child as a protective means to health promotion, they can use family meals as a positive avenue (Fulkerson et al., 2010).

Two children discussed weight-related teasing, which is reported as occurring more frequently since weight is highly stigmatized among youth (Neumark-Sztainer et al., 2002). Some findings indicate higher weight bias in younger children (Haines, Neumark–Sztainer, Hannan, Berg, & Eisenberg, 2008), and teasing from peers and friends can be very harmful.
Appearance teasing is associated with body dissatisfaction, negative weight management strategies, and psychological well-being in youth (Menzel et al., 2010). Some children will even justify or downplay being teased by saying their peers were perhaps trying to be helpful or joking around (Neumark-Sztainer, 2005a). In the current study, two children justified the teasing they endured about their weight and appearance. Future work is needed to better understanding how to help children manage teasing and weight-related commentary from peers.

Furthermore, parents often make comments that are positively intended to motivate behaviour change, but there is a lot of evidence that good intentions can still hold harmful effects (Bauer, Bucchianeri, & Neumark-Sztainer, 2013; Neumark-Sztainer et al., 2010). Parental encouragement towards weight loss can lead to maladaptive weight loss behaviours, weight gain, and the child being hurt (Neumark-Sztainer, 2005, p.49). Weight talk directed from mothers to daughters, or mothers about themselves or to others have all been linked to higher depressive symptoms in daughters (Bauer et al., 2013). Both weight teasing and encouragement to diet from parents can lead to poor psychological health among youth (Fulkerson, Strauss, Neumark-Sztainer, Story, & Boutelle, 2007). This demonstrates how direct and indirect weight talk within the family environment can affect youth. Similar associations have been seen with weight talk from fathers, showing negative effects for weight-focused comments, and positive effects of health-focused comments on behaviours (Berge et al., 2013). Weight concerns are linked to parental feedback about appearance and lowering appearance-related pressure from parents can be an imperative step in promoting positive body image while lowering maladaptive weight management strategies (Ata, Ludden, & Lally, 2007). As seen in this study, the children whose parents focus on their weight recognize their parents’ positive intentions, but also indicate being annoyed or wishing it was different. These children acknowledge being unappreciative of their
parents’ weight focused attitudes, therefore supporting that appearance-focused comments are not a source of motivation for kids to be healthier. Although they did not report engaging in maladaptive weight loss strategies, they may be more likely to engage in these in adolescence or experience other negative outcomes such as depressive symptoms (Fulkerson et al., 2007).

Some mothers relayed the ‘moral dilemma’ (Andreassen et al., 2013). This dilemma is the battle of wanting to help a child be healthy weight without addressing their weight and lowering their sense of self-worth. It is common for parents to view weight loss and physical health as an important aspects of their child’s future wellbeing, but do not want to compromise their self-esteem in the process (Andreassen et al., 2013). Mothers who have a weight concern for their child spoke directly to this issue. There was also evidence of what Andreassen and colleagues (2013) report as “nondisclosure strategies” in which parents make changes in their children’s habits without letting them know the intent behind the change. The researchers explain how these strategies are a way for individuals to address situations that may be challenging to talk about. In the case of weight management, parents may feel like they must choose between their children’s mental/emotional and physical health. However, the research suggests that children are nonetheless aware of what their parents are trying to keep from them, which is consistent with the children in this study, as they are aware of their parents’ perceptions of their weight.

In the current study, the parents and children also have similar accounts of what is being said among them, but describe the context differently. Parents explain educating their children about health, whereas children present these conversations as their parents preaching or telling them what to do. Therefore, for most families, there appears to be little conversing and open dialogue about health and weight. Perhaps these children did not sense an open platform to engage in conversations about health and weight, or were simply hesitant to explore these topics
as they were infrequently discussed. Berge and colleagues (2013) acknowledge that their cross-sectional research on weight-related conversations cannot account for directionality and explain that perhaps adolescents who are already experiencing weight-control behaviours prompt weight talk from their parents. Some children in the current study frequently asked parents about whether different foods were healthy or unhealthy, which may either be a genuine curiosity, or an attempt to regulate their diet in a healthy or unhealthy way. Parents may want to question their child’s motives to ensure they are not being too restrictive engaging in any unhealthy forms of weight control. However, they may also want to have an open dialogue about health and weight issues to encourage their children to seek information from them rather than from their peers or the media.

As in this study and others, some concerned parents are unsure how to constructively discuss weight with their child (Pagnini, King, Booth, Wilkenfeld, & Booth, 2009). Haworth-Hoeppner (2000) identifies three scenarios through which culture and family may by creating an environment more conducive to eating disorders: a critical family environment (i.e.: ‘frequent criticism about weight or appearance from one or both parents’), coercive control (i.e.: ‘rules governing food’), and a dominating discourse on weight (i.e.: ‘ongoing dialogue’) (Haworth-Hoeppner, 2000). For example, parents who excessively control their child’s eating may lead their child to later try and regain that control in other maladaptive ways (Haworth-Hoeppner, 2000). All parents in this study want their children to be healthy, but some admit not knowing how to approach the topic. There is evidence that parental focus on health rather than weight can be a protective factor against eating disorders in overweight adolescents (Berge et al., 2013), and the argument has been made that parental communication is a modifiable and therefore a favourable focus area for preventative measures to consider (Parletta, Peters, Owen, Tsiros, &
Brennan, 2012).

Another important theme that was produced in this study was the role-modelling of parents. Parental influence on their children’s behaviours goes beyond informing children (O’Dea, 2005). Contrary to some findings (Gordon-Larsen et al., 2004), most parents in this study express being healthy role models and supporting their children. The children acknowledged their parents support through encouragement and engagement, and many acknowledged their parents as positive role models. Similarly, in a study using focus groups, 7th grade children reported the importance of parental support in transportation, buying healthy food, and setting rules regarding health promotion (Lindqvist, Kostenius, & Gard, 2012). Nonetheless, daughters who often witness their mothers focusing on their own weight and body size have lower self-worth than daughters that do not observe their mothers being appearance-focused (Bauer et al., 2013). Also, girls’ perceptions of their parents’ PA is predictive of their PA, and in fact, more so than parent self-reported PA (Madsen, McCulloch, & Crawford, 2009). Modelling healthy eating behaviours have been shown to improve healthy eating among children as well (Østbye et al., 2013). As such, parents need to be aware of the types of role-modelling they are doing as their dietary and PA behaviours, in addition to how they model their self-image can impact their children. They must not only consider what they directly say to their children but remember that their children may be both watching and listening to indirect conversations and situations concerning health and weight.

There are also different elements of parenting styles within and across the families. Some research (Maccoby & Martin, 1983; K. Rhee, 2008) has categorized the main parenting styles by being high and/or low in demandingness and responsiveness (See Appendix K). Permissive
parents are high in responsiveness and low in demandingness, and can be described as
‘indulgent’. Authoritarian parents are the opposite in that they are low in responsiveness and
high in demandingness, making them more controlling (Parletta et al., 2012). Neglectful parents
are low in both responsiveness and demandingness (Rhee, 2008). And finally, authoritative
parents are both demanding and responsive by being assertive with clear expectations, while
being supportive rather than punitive or restrictive (Enten & Golan, 2008). Of the four parenting
styles (permissive; authoritarian; authoritative; neglectful) there is support for authoritative
parenting being associated with the most positive outcomes in developing self-confidence and
competence in youth (Darling, 1999), and self-regulation (i.e., adolescents eating more fruit)
that authoritative parents avoid psychological control like placing guilt on their children to get
them to be healthier. By setting clear boundaries and also encouraging autonomy, they tend to
have more bi-directional communication with their children as a result (Parletta et al., 2012).
This researcher assumes that authoritative parenting is paramount in developing healthy habits
among children due to current literature, but it is important to note that this is not conclusive.

In the current study, some parents and children described parenting practices that could
be described as authoritarian. Nonetheless, there is evidence showing children of authoritarian
(i.e., controlling) parents to eat larger portion sizes (Fisher, Birch, Zhang, Grusak, & Hughes,
2013), and to be nearly five times more likely to be overweight in comparison to children of
authoritative parents (Rhee, 2008). This may be partly attributed to these children having less
self-regulation over their satiety due to relying on external cues such as being forced to finish
their plate or being bribed with rewards like dessert (Rhee, 2008). There were also evidence of
authoritative parenting in the current study, and it appeared to be linked to better regulatory
behaviours and healthy weight. Fathers tend to describe themselves as more authoritarian while describing their partners to be more authoritative and permissive. Mothers also describe themselves to be more authoritative (Winsler et al., 2005). There were many types of conversations between parents and children. A review suggests that authoritative parenting increases children’s healthy eating, PA, and is linked to lower BMI levels in comparison to children who are parented by the other parenting styles (Sleddens, Gerards, Thijs, Vries, & Kremers, 2011). Therefore, parents should be encouraged to adopt or continue authoritative parenting techniques within these areas to help foster both healthier habits and healthier weight among youth.

Limitations/Delimitations

A delimitation in this study is not having a measure of participant’s BMI. It was decided that this might be a sensitive issue for some participants. It was also decided not to rely on self-reports. Therefore, this decision was made due to issues of using BMI as a measure, questionable self-report accuracy, and wanting to avoid to categorising and labelling participants in a weight class they may not perceive themselves to be in. Another delimitation of this study is the selection of families that are either concerned about weight or express communicating health and weight within the family. Although it can be argued that all families communicate about these topics, it was important that families acknowledged this to participate. Due to the purposefully selected participants, the implications may not be relevant to families who do not share these concerns. For instance, parents with children who may at-risk of being overweight or obese, yet do not acknowledge this risk, are unlikely to benefit from contributions made from the current study. These themes were also identified from families who have volunteered to participate in this study, and may be different for similar families who would not participate in sharing their
experiences. This study only interviewed the children within the age range from each family. Experiences may be different for older or younger siblings. However, parents were reminded that although questions refer to the child(ren) of 7 to 12 years old participating in the study, they were welcome to share additional information about their other children. Specifically, parents with several children were asked if they parent their children any differently. The case study sample is homogeneous and bounded by language, an urban environment, and child age. Therefore, this allows the study to represent a specific type of family; however, the extent that these results represent other families within these criteria is questionable. The aim rather is to explore some of the challenges that emerge from these families opposed to making generalizations about all families with regard to health and weight.

Furthermore, this multiple case study could have been more in-depth by including multiple interviews with each family member. Also, although photovoice was used as a probe for facilitators and barriers to health and weight management, other methods could have been used to help parents and children reflect on the communication among family members. For example, parents could have been asked to keep daily journals or could have been sent daily emails with questions about their interactions that day. Scrapbook interviewing has also been shown to enrich interviews with children (Harvey et al., 2012). In the current study, children could have been asked to draw things they discuss with their parents about health and weight. Finally, future studies can also consider incorporating audio recordings of mealtime conversations to capture these interactions first-hand (Wiggins, 2013).

Additionally, there are limitations associated with interview data collection that required me to reflect on my personal perceptions about the families and their health, and ensure emotional sensitivity to all participants. I am aware of the importance of reflection, identifying
personal meanings, and understanding how these meanings were shaped by my experiences. For instance, I attended a seminar on weight stigma, which included filling out the Attitudes Towards Beliefs Persons Questionnaire (ATOP) and the Beliefs about Obese Persons Questionnaire (PAOP). Although these answers were solely for our personal knowledge with no obligation to share, it was very difficult to answer some questions. My conclusion is that I am apprehensive to both extremes of beliefs about causes of obesity and levels of control people have over controlling it. I am aware that assuming it is generally controllable may be interpreted as blameful, and assuming it is generally not within control entails potentially removing the power individuals may hold in weight loss. In respect to weight concerns, I assume that health professionals have a responsibility to educate parents about how to approach these topics with their children. I believe that parents inherently want what is best for their children and some are receptive to resources tailored to their challenges. That being said, I also believe that parents have the right to refuse resources they do not deem necessary.

**Strengths**

There is a literature gap in understanding families’ perceptions of weight communication. Understanding each family member’s perceptions can inform future research on how best to develop and implement family-targeted interventions aimed at tackling the weight challenges in today’s ‘obesogenic’ environment. This study is among the first to look at weight talk from both parent and child perspectives, in a qualitative way. It is unique in utilizing a qualitative approach to provide the literature with a voice for parents and kids in this environment. This method also allows for contextual information (Guba & Lincoln, 1994) about health and weight to emerge. Additionally, it focuses on reducing health and weight-related challenges, which can potentially reduce the financial, psychological, and physical consequences of obesity from occurring, rather
than intervening after the fact. Due to the qualitative nature of the study, analytic generalizations are made about the familial perceptions of these challenges. This study seeks to inform the relationships between parent and child concerns and between factors within and beyond the family environment. It pursues this information through the participants’ insights and interpretations of their experiences (Noor, 2008).

The current research has important implications for future research aimed at developing health-centered approaches that target the family. It strives to help inform a theoretical framework of weight communication in the family context by exploring the types of communication that are and are not taking place. Future research can consider a grounded theory approach to build this framework. This study improves our understanding of the complexities of the family dynamics with at-risk youth. From a practical standpoint, highlighting the challenges, perceptions, and communication within a family can aid health professionals develop a better understanding of these families. Gaining family perceptions of current barriers as well as their insight concerning resources suitable for their needs will ensure that all recommendations made are based on family preferences. It may also inform the development of future substantive theory that will add to the extant literature in this area. In addition, the knowledge gained through this research and resulting theory may help to inform strategies aimed at preventing the development of obesity and weight concerns that are evidence-based and tailored to families’ needs. Exploring what these families are experiencing in their environment can help us reduce the current weight burden through this environment.

From a public health perspective, overweight and obesity are a visible concern. However, positive attitudes may be key in a healthy weight. In general, many children are concerned about weight and these concerns are linked to maladaptive behaviour. Although families have the
capability of being the strongest support system, research suggests that they can also negatively impact children the most. Parents’ expressions of concern can be detrimental. Therefore, this study qualitatively targets beyond what these concerns are but how they are expressed and perceived. Many parents voice wanting resources in communicating with their children. Strategies must inform parents and children with tools to adequately address weight concerns in order to prevent obesity and weight-related challenges. As seen in the literature, this study confirms that increasing body dissatisfaction and societal stigma is counterintuitive to this cause. Positive tactics at both the professional and familial level can re-frame how weight is perceived, allowing for a supportive environment for children.

**Implications**

Current obesity prevention strategies do not consider many of the issues discussed in this study. The 2005 Cochrane review by Summerbell and colleagues (2005) investigated prevention interventions in child obesity and concluded that in general, interventions have not significantly reduced weight thus far. School-based interventions have had little effect, especially in the long-term success. The review suggests that targeting the home environment as well with parental involvement can increase intervention sustainability (Summerbell et al., 2005).

Many parenting programs exist but there is little research on parental views of the programs and approaches. De Lepeleere, DeSmet, Verloigne, Cardon, and De Bourdeaudhuij (2013) is one of the only studies to assess parental views on the effectiveness and ineffectiveness of various parenting practices. These parents shared that monitoring, consistency, modelling, motivating, and offering alternatives were among the effective practices, whereas anger was considered ineffective. Finally, in a qualitative study by Holt and colleagues (2008), parents of overweight youth voiced wanting more social support and family-centered treatment. This was
echoed in the current study among families who were not currently struggling with obesity. This voices the need for preventative measures to include more resources for all parents. Specifically, some parents would like to know how to approach and integrate healthy communication with their family, while protecting their children from weight-related experiences. On this note, it is important for health care promoters to be educated on health and weight-related issues in order to adequately guide and support families. Recent development training in weight bias has been shown to improve anti-fat attitudes among Canadian health promoters (McVey et al., 2013). If both practitioners and parents can adopt positive attitudes, our youth will be likely to adopt these as well, giving them the opportunity to embrace healthy habits without having to suffer from weight bias.

For future researchers seeking to administer questionnaires, or practitioners looking for a screening tool of weight commentary in the home, there are some key questions that can be asked. A modified version of the Family History of Eating Survey (FHES; Moreno & Thelen, 1993; Thelen & Cormier, 1995) can be used for parents. This is a 4-item questionnaire on a 5-point likert scale to assess how often parents encourage their child to lose or control their weight. The Weight-Related Pressure Questionnaire (C Sabiston, Castonguay, Barnett, O'Loughlin, & Lambert, 2009; Thelen & Cormier, 1995), also modified from the FHES (Moreno & Thelen, 1993) can be used for children. This is a two-item self-report questionnaire to assess weight-related pressures (negative commentary and encouragement for weight loss), as well as the source of social pressure (mother, father, brothers or sisters, and friends). Another quantitative measure that can be considered in future research is The Parental Authority Questionnaire – Revised (PAQ-R) (Reitman, Rhode, Hupp, & Allobello, 2002), which is a 30-item questionnaire given to parents to assess parenting styles.
Conclusion

Understanding how families support and feel supported by one another and by others is an important step in creating a more supportive environment around weight-related problems (Skelton et al., 2012). Golan (2006) recommends parents as the main “agents of change” in future interventions through developing parental leadership, parenting skills, and communication skills, while considering family factors such as socio-economic status and motivation to change, and further suggests that weight management should be “addressed from the perspective of the whole family”. Family-based approaches are considered the ‘gold standard’ in weight-related issues (Skelton et al., 2012). An important component of working with the family is equipping parents with strategies to be authoritative and health-focused to build positive self-image among youth (Moria Golan, 2006).

Parents are concerned because they must be mindful of the physical and psychological risks of health and weight. These 7 to 12 year old children are generally aware of how their parents perceive them and their self-image seems to reflect their parent’s perceptions. Families voice unique challenges through which they can be better supported, which should be recognized in efforts to equip them with the tools they perceive can help them along the way.
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Appendix A
Ecological Model of Influences Within Family 1
Ecological Model of Influences Within Family 1

**Microsystem**
- Mother-daughter relationship (focus on Keisha's weight)
- Peer commentary/teasing
- Keisha's activities (swimming, skating)
- Shared room in small apartment

**Mesosystem**
- Maria's various roles (single mother, an employer, and provider for her extended family)
- Keisha's peers voicing perceptions about her mother being "sexy"

**Exosystem**
- Maria's work schedule (limited time) & income on Keisha
- Keisha's experiences with peers affecting Maria's interactions with her

** Macrosystem**
- Cultural influence of traditional foods
- Societal body ideals
- Matriarchal and maternal roles
Appendix B
Letter to Parents and/or Caregivers
Dear Parents and/or Caregivers,

I am an Exercise Science research assistant at the University of Toronto. With the help of my supervisor, Dr. Catherine Sabiston, I am conducting a study to examine family perceptions of the health environment. We are asking for your participation, as well as your child’s, in this research so that we can better understand family communication and perceptions of health and weight-related challenges in order to inform future strategies targeting policy and programs.

You may be eligible to participate in the study if you:

- Are a parent and/or caregiver concerned about your family’s health and weight-related challenges
- Have a child between 8-12 years old

If you are interested in participating, you and the child who received this letter will have a brief initial meeting to sign consent forms and cover study details. The following week, you will each undergo a 1-hour interview about perceptions of you and your family’s health environment.

Compensation: In return for your participation, your family will receive $100. In addition, each participant will receive a pedometer with access to a website to record your daily steps.

For more information, or to register for the study, please contact Gina Pinsonnault-Bilodeau: gina.pinsonnault.bilodeau@mail.utoronto.ca or call 416-459-0041. We are only interviewing a small number of families, and the opportunity to participate and share your family’s experiences is a first come-first serve process. Even if you are just thinking about participating, or would like more information, please contact Gina as soon as possible.

If you know a family that may be interested in participating in our study, please relay this information to them.

Thank-you for your time!

Gina Pinsonnault-Bilodeau
Exercise Science Master’s student
University of Toronto
gina.pinsonnault.bilodeau@mail.utoronto.ca
Appendix C
Recruitment Poster
Exploring family perceptions of the health environment: interviews with parents and kids

How do families talk about and think about health and weight? We are conducting a study to explore these answers.

Participation in the study will involve one interview with at least one parent/caregiver and a child who is aged 8 to 12 years. You will receive $100 and pedometers as compensation for your participation.

If you:
- Are a parent/caregiver concerned about your family’s health and weight
- Have a child between 8-12 years old

You may be eligible for this study! Contact Gina Pinsonnault-Bilodeau for more details.

Email: healthstudy2013@gmail.com; or gina.pinsonnault.bilodeau@mail.utoronto.ca; Or call 416-459-0041
Appendix D
Recruitment Email
Dear XXX,

My name is Gina Pinsonnault-Bilodeau and I am a master’s student in exercise psychology at University of Toronto, working with Dr. Catherine Sabiston.

I will be conducting a qualitative study exploring family perceptions of their health and weigh-related challenges. I am looking to recruit families with at least one parent and/or caregiver and a child of 8-12 years of age, of which one parent and/or caregiver is concerned about their child’s weight. Each family member will be asked to participate in a face-to-face interview. In return for their participation, families will receive a $100 honorarium. In addition, each participant will receive a pedometer with access to a website to record your daily steps.

I would love the opportunity to seek families interested in this study through your organization. Please do not hesitate to contact me to register or for any further information about my study.

Thank-you for your time,

Sincerely,

Gina
Exercise Science
University of Toronto
MSc Candidate
gina.pinsonnault.bilodeau@mail.utoronto.ca
416-459-0041
Appendix E
Parental/Caregiver Informed Consent
Exploring family perceptions of the health environment: A qualitative study with parents and kids

PARENTAL/CAREGIVER INFORMED CONSENT

Investigators
Primary Investigator: Dr. Catherine Sabiston: catherine.sabiston@utoronto.ca
Research Assistant: Gina Pinsonnault-Bilodeau at gina.pinsonnault.bilodeau@mail.utoronto.ca

Purpose:
We are conducting a study to examine family perceptions of the health environment. We are asking for your participation, as well as your partner’s and child’s in this research so that we can better understand family communication and perceptions of health and weight-related challenges. Results from this study will be presented at scientific conferences, published in academic journals and will be used to inform prevention and intervention policy. This study is in partial fulfillment of Gina Pinsonnault-Bilodeau’s Master’s thesis.

Study Procedures:
• You, your partner, and your child will be asked to take photos of objects and places that represent your health environment within your home and community
• You will be asked to participate in a face-to-face interview that will last approximately 1 hour in a private location of your choice. Sample questions are:
  o “What things in your environment help your family be healthy?”
  o “What types of conversations take place at home about health and weight?”
• You and your spouse can complete the interview together or separately
• Your child will participate in a separate interview

Benefits and Risks to Participants:
• There are no foreseeable risks associated with your involvement in this study.
• You will be provided with a summary report of the findings from this study.
• You will be given a pedometer as compensation for your participation, which is worth $20.00 with access to a website where you can record your steps and monitor your progress
• Your family will also be given a $100 honorarium for your participation

Confidentiality
Information gathered will be used for research purposes only, and the identity of individual participants will not be revealed at any time. Results from this study will only
be used in the preparation of academic research publications and presentations. No persons other than the members of the research team will have access to the interviews, or any other supporting documentation, which will be securely stored for a minimum of five years. After this time, the principal investigator will destroy all related study documents.

Participant Concerns:
• You are not under obligation to participate in this study. You will be advised of any new information that may influence your decision to participate,
• You are free to withdraw from this study at any time with absolutely no penalty,
• You may refuse to respond to any questions during the interview,
• There are no known conflicts of interest on the part of the researchers or University of Toronto.

Contact information about the rights of research participants:
If you have any concerns about the rights of research participants, you may contact the Office of Research Ethics 416-946-3273. The protocol reference number for this study is #28174.

Contact information about the study:
If you have any questions concerning the procedures of this study or desire further information please contact Gina Pinsonnault-Bilodeau at gina.pinsonnault.bilodeau@mail.utoronto.ca; 416-459-0041 or her supervisor Dr. Catherine Sabiston at catherine.sabiston@utoronto.ca; 416-978-5837

Child Consent
Your signature indicates that you are consenting for your child to participate in this study by undergoing the same procedures listed above. Children will be asked questions such as,
"Can you tell me about your health?"
"How do you talk to your mom and dad about your health or weight?

I hereby consent for my child to participate.
Name of Child Participant: _________________________________

Consent:
Your signature below indicates that
• you have been informed of the objectives and procedures of this research study
• you have the ability to print a copy of this consent form for your records
• you consent to participate in this project, as outlined above.

Signature: _________________________________

Print your full name: ___________________________________

Signature (Parent/caregiver #2): _________________________________

Print your full name: ___________________________________
Appendix F
Informed Assent for Children
Exploring family perceptions of the health environment: A qualitative study with parents and kids

INFORMED ASSENT FOR CHILDREN

Investigators
Primary Investigator: Dr. Catherine Sabiston: catherine.sabiston@utoronto.ca
Research Assistant: Gina Pinsonnault-Bilodeau at gina.pinsonnault.bilodeau@mail.utoronto.ca

Purpose:
This study is trying to understand how families see health and weight challenges. We are asking for your participation, as well as your parents and/or caregivers, so that we can better understand what you and your family think and feel about health and weight challenges.

Study Procedures:
• You, your partner, and your child will be asked to take photos of objects and places that represent your health environment within your home and community
• You will be asked to participate in a 1-hour face-to-face interview to answer questions about your health. For example:
  o “Can you tell me about your health?”
  o “How do you talk to your mom and dad about your health or weight?”

Benefits/Compensation and Risks to Participants:
• There is no harm associated with you participating in this study.
• You will be given a summary report of the findings from this study.
• You will be given a pedometer for your participation, worth $20.00, with access to a website where you can record your steps and monitor your progress
• Your family will also be given a $100 honorarium for your participation

Confidentiality:
• No information that discloses your identify will be released.
• Only members of the research team mentioned above will have access to any documentation.
• All documents will be safely stored and destroyed after 5 years.

Participant Concerns:
FAMILY PERCEPTIONS OF THEIR HEALTH ENVIRONMENT

- You are not obligated to participate in this study.
- You are free to withdraw at any time without penalty.
- You may refuse to respond to any questions.
- There are no known conflicts of interest on the part of the researchers or University of Toronto

Contact information about the rights of research participants:
If you have any concerns about the rights of research participants, you may contact the Office of Research Ethics at 416-946-3273

Consent:
By signing this form, I agree that:

- The study has been explained to me. Yes No
- All my questions were answered. Yes No
- I have the right to stop at any time. Yes No
- I may refuse to participate without any problems. Yes No
- I have a choice of not answering any specific questions. Yes No
- I am free now, and in the future, to ask any questions about the study. Yes No
- I have been told that my personal records will be kept confidential. Yes No
- No information that would identify me will be released without asking me first. Yes No
- I will receive a signed copy of this consent form. Yes No

I hereby consent to participate.

________________________   ______________________
Signature                   Date

Name of Child Participant: ______________________

Name of person who obtained consent: ______________________
Appendix G
Ethics Certificate of Approval
PROTOCOL REFERENCE # 28174

October 2, 2012

Dr. Catherine Sabiston
FACULTY OF PHYSICAL EDUCATION AND HEALTH

Dear Dr. Sabiston,

Re: Your research protocol entitled, “Exploring family perceptions of their health environment: A qualitative study with parents and kids”

ETHICS APPROVAL

Original Approval Date: October 2, 2012
Expiry Date: October 1, 2013
Continuing Review Level: 1

We are writing to advise you that the Health Sciences Research Ethics Board (REB) has granted approval to the above-named research protocol under the REB's delegated review process. Your protocol has been approved for a period of one year and ongoing research under this protocol must be renewed prior to the expiry date.

Any changes to the approved protocol or consent materials must be reviewed and approved through the amendment process prior to its implementation. Any adverse or unanticipated events in the research should be reported to the Office of Research Ethics as soon as possible.

Please ensure that you submit an Annual Renewal Form or a Study Completion Report 15 to 30 days prior to the expiry date of your current ethics approval. Note that annual renewals for studies cannot be accepted more than 30 days prior to the date of expiry.

If your research is funded by a third party, please contact the assigned Research Funding Officer in Research Services to ensure that your funds are released.

Best wishes for the successful completion of your research.

Yours sincerely,

Judith Friedland, Ph.D.
REB Chair

Daniel Gyewu
REB Manager
Appendix H
Interview Guide for Parents/Caregivers
Semi-Structured Interview Guide with Parents/Caregivers

Introduction

- "Hi, I’m Gina. Thank-you again for your participation in my study. We can start with an interview with you (parents [and/or caregivers] together or separately depending on what they have chosen), and then with your child. [If at the university] I have some magazines and a computer to pass the time while you are not being interviewed”. [Interviewer will engage in regular conversation before beginning, to build a rapport. Interviewer will also load the camera photos to the laptop before beginning].

- “The interview will be audio-recorded and will last approximately an hour” [If interviewed together, questions will be asked to each parent [and/or caregiver], and the interview will last up to two hours].

- “If you have any questions at any time feel free to ask. As well, you can choose to share anything you feel comfortable with and you can choose to not answer any questions. I’d like to remind you that you are also free to withdraw from the study at any time”.

- Begin recording

- “To begin, I will just remind you that this study is about better understanding family communication and perceptions of health and weight-related challenges ” When we are discussing your child, remember that it is X [child’s name] we are referring to. Of course, feel free to discuss your other children as well.

- “Would you mind sharing why you chose to participate in this study?”

Health and Weight Perceptions

- How would you describe your current health?
  - Can you describe your typical eating habits and patterns?
    - How many meals do you eat a day?
    - What about snacks?
    - Can you describe the food that is always available in your house?
    - Please describe a typical family dinner in your house.
  - Can you describe your typical exercise habits and patterns?
    - How do you feel about your physical activity?

- How would you describe your current weight?
  - How do you feel about your weight?
  - How much control do you feel you have over your weight?
  - Do you feel your weight influences your family in any way? If so, how?
How would you describe your child’s health and weight?
- How do you feel about that?
- What factors contribute most to your child’s current health/weight?
- What are the main concerns you have about your child’s health/weight?

Do you and your spouse discuss your child’s health/weight?
- Can you walk me through some of those discussions?

Do you and your spouse discuss your own weight or health in front of your child?
- Have you ever noticed your child imitating your actions or words around weight or health? If yes, describe.

What types of conversations take place at home about health and weight?
- How does your child talk about health/weight?
- How do you talk about health/weight with your child? With each other?

Are there things that you say to encourage your child to be healthier?
- What types of things do you talk about concerning health/weight?

Are there things that you do to encourage your child to be healthier?
- In general, can you describe your parenting actions on a scale of 1 to 5, 1 being “I let my child do what he/she wants”, to 5 being “I always try to control what my child does”?

Have you or anyone in your family been the recipient of weight stigma or discrimination?

Perceived Facilitators and Barriers

Can you tell me about the pictures you took this week of the barriers and facilitators to health in your environment? Why did you choose these photos?
- Can you talk to me about what this means to you?

What things in your environment help your family be healthy?
- Neighbourhood?
- School?
- Community?

Have you looked into the community programs like extracurricular activities?
- Can you tell me how you feel about the programs offered?
- How do they suit your needs as a parent/caregiver?
  - Is there anything more you would like to have available?

What things in your environment are challenges to your family’s health?

Those are all the questions I have. Thank-you for sharing that with me. Is there anything else you would like to add or comment on before ending the interview? Do you have any questions for me about the study? Thank-you for your time!
Appendix I
Interview Guide for Child
Semi-Structured Interview Guide with Child

Introduction

Note: The wording of the introduction and questions will depend on the age and communication level of each child. Children will range between 8 to 12 years old.

- “Hi, I’m Gina. Very nice to meet you and I want to thank you for coming today.” [Interviewer will engage in regular conversation before beginning to build a rapport. Interviewer will also load the camera photos to the laptop before beginning]. “Before we begin, I want to ask you if you are okay with doing this interview. The interview will be recorded and will be about one hour.”

- “If you have any questions you can ask me right away (like if there is something you don’t understand), and if there are questions you don’t want to answer, that’s okay. You can choose stop the interview at any time.”

- Begin recording

- “This study is about how you think and feel about you and your family’s health and health environment (inside and outside of your home)”.

Health Perception

- Can you tell me about your health?
  - Can you tell me about some of the healthy things you like?
  - What about healthy things you don’t like?
- How do you feel about your weight?
  - Have you ever received comments from others about your weight?
  - If yes, from whom?
- Can you describe your parents'/caregivers’ health and weight?
  - How do you feel about their health and weight?
  - Are there things that your mom and dad do that you don’t think are healthy?
  - How do your parents/caregivers affect your health/weight?
- How do you think your parents/caregivers feel about your health and weight?
- What do your mom and dad say that encourages you to be healthier?
  - What types of health things do they talk about?
- What things do they do to encourage you to be healthier?
  - Can you share any examples of how they help you be healthy?
  - Can you share some examples of things you talk about?
  - Do you ever hear your parents/caregivers talking about health and weight things?
Perceived Facilitators and Barriers

- Can you tell me about the pictures you took this week of things around you that help or make it harder to be healthy?
  - What made you choose to take these photos?
    - Can you tell me what they mean to you?
- Is there anything you would like to be different at home to be healthier?
  - Can you share some examples?
- What things outside of home help you and your family to be healthy?
  - What about things outside of home that make it hard to be healthy?
  - Neighbourhood, community, school prompts

Attitudes/Beliefs about Community

- Have you done any activities outside of school (ex: a sport or camp)?
  - Are there activities you would like to do that they don’t have?
- How do people make you feel about your health?
- How do people make you feel about your weight?
  - Are there times when people make you feel bad about how you look?
- How do people make you feel about your parents'/caregivers' health/weight?

Those are all the questions I have. Thank-you for sharing that with me. Is there anything else that you would like to add or comment on before ending the interview? Do you have any questions for me about the study? Thank-you for your time!
Appendix J
Table 1
**Table 1**

*Participant Photos*

<table>
<thead>
<tr>
<th>Participants</th>
<th>Facilitators</th>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FAMILY 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maria (F1M)</td>
<td>1. Kiwis</td>
<td>1. Meat &amp; rice lunch</td>
</tr>
<tr>
<td></td>
<td>2. Homemade lunch for school</td>
<td>2. Daughter eating fast food</td>
</tr>
<tr>
<td></td>
<td>4. Gym in a hotel</td>
<td>4. Shared bedroom</td>
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<tr>
<td></td>
<td>5. Daughter skating</td>
<td>5. Apartment</td>
</tr>
<tr>
<td></td>
<td>6. Sushi and veggies at restaurant</td>
<td>6. Traditional Filipino fish &amp; pork that are fried when prepared (unhealthy cultural foods)</td>
</tr>
<tr>
<td></td>
<td>7. Nearby park and playground (Accessibility)</td>
<td>7. Snow &amp; slush at the park</td>
</tr>
<tr>
<td>Keisha (F1D)</td>
<td>1. Kiwis</td>
<td>1. Television</td>
</tr>
<tr>
<td></td>
<td>2. Avocados</td>
<td>2. Fast food restaurant</td>
</tr>
<tr>
<td></td>
<td>3. Juice</td>
<td></td>
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<tr>
<td></td>
<td>4. Chicken (Healthy foods she enjoys)</td>
<td></td>
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<tr>
<td><strong>FAMILY 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tina (F2M)</td>
<td>1. Health safety pamphlets</td>
<td>1. Microwave</td>
</tr>
<tr>
<td></td>
<td>a. renovation procedures</td>
<td>2. Juice</td>
</tr>
<tr>
<td></td>
<td>b. safe cleaning products</td>
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</tr>
<tr>
<td></td>
<td>c. importance of dusting</td>
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<tr>
<td></td>
<td>d. safe fish</td>
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<tr>
<td></td>
<td>(Resources in community)</td>
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<tr>
<td></td>
<td>2. Milk</td>
<td></td>
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<tr>
<td></td>
<td>3. Salad</td>
<td></td>
</tr>
<tr>
<td>Jomo (F2F)</td>
<td>1. 5L of white vinegar (cooking &amp; cleaning benefits)</td>
<td>1. Bottle of gin</td>
</tr>
<tr>
<td></td>
<td>2. Health safety pamphlets</td>
<td></td>
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<tr>
<td></td>
<td>3. Fruit dish</td>
<td></td>
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<tr>
<td></td>
<td>4. Homemade whole wheat bread (healthy unprocessed foods)</td>
<td></td>
</tr>
<tr>
<td><strong>Estelle (F2D)</strong></td>
<td>1. Soap (personal hygiene)</td>
<td></td>
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<tr>
<td></td>
<td>2. Salad</td>
<td></td>
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<tr>
<td></td>
<td>3. Skipping rope</td>
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<tr>
<td>FAMILY PERCEPTIONS OF THEIR HEALTH ENVIRONMENT</td>
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<tr>
<td>4. Oranges</td>
<td>1. Juice</td>
<td></td>
</tr>
</tbody>
</table>
| Isaac (F2S) | 1. Toothbrush & toothpaste (Hygiene)  
2. Salad  
3. Milk  
4. Soap |
| FAMILY 3 |  |
| Ezra (F3F) | 1. Matzos (Passover crackers)  
2. Skateboards  
3. Dumbbells  
4. Washroom (cleanliness)  
5. Fresh food aisle  
6. Nuts (also barrier when in excess)  
7. Kids soccer pamphlet  
8. Yoga mat  
9. TV/Computer |
| Tyler (F3S) | Tyler took 150 photos of healthy and unhealthy foods in the supermarket. |
| FAMILY 4 |  |
| Kim (F4M) | 1. Kale salad |
| Stanley (F4F) | 1. Waffles (both healthy & unhealthy)  
2. Bananas  
3. Natasha’s soccer ball & baseball ball bat  
4. Cereal and toast (PB&J) |
| Natasha (F4D) | 1. Bowl of fruit  
2. Watermelon  
3. Bowl of cereal |
| FAMILY 5 |  |
| Kate (F5M) | 1. Backyard playground (fresh air)  
2. Toothbrush & floss (hygiene)  
3. Bed (sleep)  
4. The kids playing (unstructured PA) |
| John (F5F) | 1. John ready for a run  
2. Running shoes  
3. Fruit & yogurt |
<p>| Christopher (F5S) | 1. Chicken |</p>
<table>
<thead>
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<tbody>
<tr>
<td>2.</td>
<td>Chris on his bicycle</td>
</tr>
<tr>
<td>3.</td>
<td>Milk</td>
</tr>
<tr>
<td>4.</td>
<td>His mother</td>
</tr>
<tr>
<td>5.</td>
<td>Sport clothes</td>
</tr>
</tbody>
</table>
Appendix K
Parenting Styles Model
Parenting Styles Model

- Authoritative
- Permissive
- Authoritarian
- Neglectful