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## Exploring Parent Support for School-Based Health Programs to Reduce Childhood

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# Walden University

College of Social and Behavioral Sciences

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Alaphiah Campbell Byfield

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2022

Abstract

Parent Support for School-Based Health Programs to Reduce Childhood Obesity

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Dissertation Submitted in Partial Fulfillment

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## Abstract

The rise in childhood obesity rates continues globally despite the design and implementation of social programs aimed at curtailing that phenomenon. The government of Jamaica has indicated that a whole-of-government, whole-of-society approach is needed to control obesity. The literature has shown that in Jamaica, support for being *fluffy* impedes progress toward addressing the problem of childhood obesity; being fluffy is considered attractive and a sign that one has a good life. Studies have shown that obese or overweight children are at risk for developing psychosocial (e.g., having low self-esteem, and underperforming academically) and medical problems (e.g., noncommunicable diseases such as diabetes). Studies have shown, further, that parental support for school-based health initiatives is needed to address this problem. Informed by the theory of planned behavior, the purpose of this qualitative study was to explore parents' support for school-based programs aimed at curtailing childhood obesity. Online face-to-face interviews were conducted via Zoom with 10 parents of overweight or obese children. Six themes emerged, including parental responsibilities, the business of schools, societal impact, the fluffy culture, family members' role, and control issues, reflecting parents' willingness to accept responsibility and a willingness to support school-based programs aimed at controlling childhood obesity. The increased awareness of parents' attitudes toward school-based health programs and their belief that the fluffy phenomenon is not an urgent problem can be used to develop government-implemented health-education policies to educate parents. To effect positive social change, these programs can be implemented in schools and homes.

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## Chapter 1: Introduction to the Study

### **Introduction**

Once considered an issue for developed countries, childhood obesity is now showing a significant rise in low- and middle-income countries (World Health Organization [WHO], 2020). Additionally, the WHO has cited that there is a greater risk for children from low- and middle-income countries to consume more caloric-dense food, which heightens children's chances of being overweight or obese, problems that often persist into adulthood. Adverse effects on health include but are not limited to the development of noncommunicable diseases such as diabetes and hypertension (WHO, 2020). Overweight or obese children are also at risk of being bullied by their peers and others; this can interfere with their self-esteem which, potentially, may impact their academic performance (Small & Aplasca, 2016).

Management of childhood obesity must take a whole-of-government and whole-of-society approach (WHO, 2016). Governments have the capability of implementing school-based health initiatives to promote healthier lifestyle choices such as diet and exercise (WHO, 2016). Parents play an invaluable role in the whole-of-society approach; parental support for school-based health initiatives can potentially curtail childhood obesity in Jamaica. A joint effort between schools and parents, where responsibility is shared, is the cornerstone to the successful implementation of school-based health programs (WHO, 2016). Findings from this study can be used to educate and influence policy decisions dealing with the health needs of school-age children, resulting in a better quality of life for children and others in their community.

Chapter 1 describes the problem and its background followed by the purpose of the study and the framework that guided it. The assumptions, limitations, scope, and delimitations of the study are also discussed. This chapter closes with the significance of collaboration between school and parents in curtailing childhood obesity in Jamaica.

### **Background**

In Jamaica, being overweight or obese is supported by the widespread *fluffy* phenomenon where overweight or obese children/adults, usually female, are perceived as pleasing to the eye. Although this phenomenon is supported by some members of Jamaican society, there is a multiple-stakeholder initiative called Jamaica Moves launched by the Ministry of Health and Wellness (MOHW) to curtail obesity and its associated medical and sociopsychological problems (MOHW, 2018). Concerns about childhood obesity abound in many sectors within the Jamaican society; data collected from the Global School-Based Student Health Survey (GSHS), a collaborative project among various countries, including Jamaica, the United States Centers for Disease Control and Prevention (CDC), and the Jamaica Survey of Living Conditions (JSLC), indicated that obesity among children in Jamaica is high (JSLC, 2016, 2018; WHO, 2019). The Ministry of Health, Jamaica advocates for a multisector approach to addressing issues of obesity, and parents have been identified as one group that, with the requisite knowledge, can help address issues related to childhood obesity. For this study, I used the theory of planned behavior (TPB) to explore parents' attitudes toward and support for school-based programs aimed at controlling childhood obesity. I also sought

to understand what role the fluffly phenomenon played in parents' response to these programs.

### **Problem Statement**

In 2013, 42 million children under 5 years of age were either overweight or obese (WHO, 2015). Childhood obesity is a health issue of concern to both developed and developing countries; however, childhood obesity is more than 30% higher in developing countries (WHO, 2015). Children in low- and middle-income countries are more at risk for consuming high, calorie-based nutrition, which increases their risk of developing obesity (WHO, 2015). According to the WHO (2015), obesity is preventable, but it has more than doubled since 1980. In Jamaica, specifically, obesity and being overweight are growing health issues; additionally, a significant portion of the population indicated that they engage in low levels of physical activity, and the reports of familial, noncommunicable diseases, such as diabetes, are also high (Wilks et al., 2008).

Adults are influential figures in the lives of children, helping to shape their way of life, thus impacting childhood obesity rates (Peters et al., 2014). According to Bergstrom et al. (2015), the home and school environments are two important social settings that contribute to the development of healthy habits in children. To support the claim that adults play a role in curtailing childhood obesity, Marzuki et al. (2015) inferred that the nutritional knowledge and attitudes of adult figures in the lives of children must not be ignored in the fight against childhood obesity. Further compounding the potential impact of adult figures in curtailing childhood obesity, Nnyanzi et al. (2016) argued that some parents may not readily accept that their children are overweight or obese; they may

argue that genetic factors are responsible for their children's weight and hold no remorse if the children are happy. It is also important not to engender feelings of blame in parents, as this could lead to possible rejection of children's health initiatives and could hamper the desired goal of curtailing obesity (Nnyanzi et al., 2016). Nnyanzi et al. (2016) argued that it is better to have parents' support when suggesting changes to their children's health because the lack of support can jeopardize any health-initiative program's success.

There are numerous factors that can influence parents' understanding of the need and, ultimately, their support for programs to reduce childhood obesity. According to a past chief medical officer in the Jamaican Ministry of Health, the prevailing culture of overweight acceptance (commonly referred to as fluffy) may explain why the problem of obesity persists in Jamaica (Cunningham, 2014). Being fluffy is a phenomenon whereby obesity or being overweight is seen as a good thing, as pleasing to the eyes. In particular, the overweight or obese body-type in females is adored by some in the society. Though not yet documented empirically, concerns about cultural acceptance of obesity were again raised recently. At the "Jamaica Observer Your Health, Your Wealth Symposium," a local physician emphasized the dangers of the cultural affinity for the fluffy phenomenon (i.e., the appeal of the overweight and/or obese body-type) in Jamaica (Jamaica Observer, 2017). Although her main message drove home the point that overweight body types are not healthy, local newspapers captured attitudes expressed in response to the doctor's admonishments, including "the doctor doesn't know what she is saying, fatness all the way" and "skinny people have just as many illnesses as thick people" (Jamaica Observer, 2017).

Task forces and numerous programs launched in Jamaica aimed at curtailing childhood obesity have not reduced the incidence and prevalence of obesity (MOHW, 2013). Knowledge is an important component of a healthy lifestyle; a parent's perception can influence their intentions to support healthy lifestyle behaviors for their children and their belief systems serve to inform their behaviors (Sylvetsky-Meni et al., 2015). Studies to-date have not focused on Jamaican parents' attitudes towards health initiative programs for children. Exploring parents' support for health programs for school-age children can potentially foster collaboration between parents and schools to reduce the incidence of childhood obesity.

### **Purpose of the Study**

The purpose of the study was to gain a better understanding of parental support for school-based health initiatives for school-age children. A qualitative research approach was employed to understand parents' support for health programs designed for school-age children in Jamaica. Findings from the study can potentially increase the accessibility and success of health initiatives programs for school-age children.

### **Research Questions**

The following questions guided the exploration of this qualitative research:

Research Question 1 (RQ1): What are parents' beliefs about their role in curtailing childhood obesity?

RQ2: What are parents' thoughts about school-based health initiatives?

### **Theoretical Framework**

The TPB guided this research. The TPB helped in understanding participants' thoughts about the fluffy phenomenon and how it influenced their ideas about childhood obesity and the benefits to be derived from engaging in and/or supporting school-based health initiatives for children. Exploring an individual's intention to engage in a behavior is a focal position of TPB (Ajzen, 2002; Montano & Kasprzyk, 2008). Exploring how parents' thoughts about (a) subjective norms (i.e., what one believes is normal and appropriate) and (b) perceived behavioral control (i.e., whether one perceives they have control over outcomes) can yield insights into parents' support for school-based, health initiatives.

### **Nature of the Study**

Obtaining firsthand information from parents about the fluffy phenomenon under study may lead to a better understanding of their support for health-promotional programs for school-age children. To that end, a qualitative design gave each participant an opportunity to share their experience and, by extension, their degree of support health promotional programs for school-age children. According to Mathison (2005), a person's experience can influence how they feel and, ultimately, shape their view of life. In this researcher, I aimed to understand how the experience of parenting an overweight or obese child in a culture where being fluffy is viewed as attractive shaped their support, or not, for school-based programs aimed at curtailing childhood obesity. Interpretative phenomenological analysis (IPA) allows for the collection of data by exploring an individual's experiences and meaning in their life (Gibson & Hughes-Johnson, 2012),

which can impact their attitudes. According to Alase (2017), IPA is best suited to understanding the lived experience of an individual by soliciting thick rich information of their experience and what it means to them.

### **Definitions**

*Behavioral beliefs:* The thoughts and feelings held about the behavior; they can be positive or negative.

*Body mass index (BMI):* A person's weight in kilograms divided by the square of height in meters; it is a measure used to determine childhood overweight and obesity (CDC, 2018a).

*Childhood obesity:* BMI at or above that of 95 out of 100 children and teens of the same age and sex (CDC, 2018a).

*Childhood overweight:* BMI at or above that of 85 out of 100 and below that of 95 out of 100 children and teens of the same age and sex (CDC, 2018a).

*Control beliefs:* Perceived belief that one has control of factors that influence what is happening or will happen.

*Normative beliefs:* Individuals' perception of how referent people feel about the desired behavior and if the desired behavior should be performed (Ajzen, 2002).

*Parents:* Mothers, fathers, or legal guardians.

*Subjective norms:* Perceived social pressure to comply with behaviors widely viewed as appropriate and acceptable.

*Support:* Positive action toward and take actions outlined by the school-based programs.

### **Assumptions**

I assumed that the results from this study could add valuable insight to existing scientific data related to childhood obesity in Jamaica, and I assumed that my decision to use an IPA approach was best suited to provide valuable insights into the lived experience of parents of overweight and obese children within the fluffy culture. It was my desire to have access to the target participants who consisted of parents of overweight or obese school-aged children living in Jamaica, and I assumed they would be willing and available to participate. Each participant provided genuine and truthful responses about their support for school-based health programs aimed at reducing childhood obesity that they have experienced and were familiar with the notion of fluffy such that they could describe their feelings about it. It was my intention that this research process would not have presented any challenge not anticipated and without a viable solution.

### **Scope and Delimitations**

This research was guided by and restricted to the tenets of the TPB. The health belief model and the transtheoretical model were two other popular theories that are frequently used in health behavior research. The health belief model seeks to explain actions taken by individuals to avoid or curtail a real or threatening illness (Clemow, 2004). The transtheoretical model gives insight into how individuals change their behavior to prevent a disease or gain better health (Rossi, 2004). However, I believed that the tenets of the TPB best suited this research.

The study was restricted to parents of overweight or obese children from within Jamaica; these children may be otherwise classified as being chubby. I focused on parents

of overweight or obese children because limited scientific data could be found in Jamaica on the views of parents towards childhood obesity and it filled the research gap noted. Gaining insights into parents' experience of raising children in a culture where views of fluffy children make being overweight or obese attractive and acceptable can contribute to improvement in children's health and, by extension, positive social change. Parents who considered their children chubby but whose weights were not aligned to those of the CDC guide (overweight or obese) were excluded. Eligible participants were able to participate in virtual or telephone interviewing for approximately 45 to 60 minutes. In-person interviews on the Zoom virtual platform and telephone interviews were conducted. Although transferability is not a primary focus of qualitative research methods, ensuring that participant data are rich and truly reflect their lived experience could aid in replication with a different population in a similar setting (Toma, 2006). Participants were required to express their own lived experiences of the phenomenon under review; they were not required to present document proof of the views they expressed for this study. Additionally, for control of self-reporting biases, I asked each participant to rephrase and reword to check for any biases.

### **Limitations**

Using a convenience sampling strategy, participants were drawn from a population of parents with overweight or obese children living in Jamaica. While generalizability is not the goal of an IPA study, I employed measures ensuring that the data collected from each participant were full, rich, and reflective of their lived experience. The rigors of the scientific methods employed supported replicating this

study with a different sample, that is, maintaining an audit trail, member checking, and using a reflexive journal to bracket and set aside my personal biases (see Toma, 2006); these methods will be detailed in Chapter 3.

### **Significance of the Study**

The incidence and prevalence of childhood obesity in Jamaica has led to a partnership between the Ministry of Health and Ministry of Education, facilitating the establishment of the Health Promoting Schools Initiative (MOHW, 2015). This initiative supports actions (such as rules about consumption of soft drinks in school) of the WHO aimed at curtailing childhood obesity and identifies the key role of schools in the management and prevention of childhood obesity (Lobstein, 2014). A school is the place for academic and social learning; therefore, this environment is crucial to the success of health initiative programs for students. Lai-Yeung (2013) supported the claim that schools play a role in educating children about healthier lifestyle choices but reported that there is room for improvement in this role. Having a better understanding of parental support for school-based health programs can help identify barriers to the success of existing health programs. Findings from the study can be used to educate and influence policy decisions dealing with the needs of school-age children, resulting in a better quality of life for children and others in their community.

### **Positive Social Change**

The positive social impact derived from this study can impact not only the children and their families but could also have a far-reaching effect to the wider community, governments, and even globally. Gaining a better understanding for how

parents feel and act towards school-based programs can provide information on how to implement programs aimed at positively impacting healthy lifestyle choices for their children. Children could lead healthier lives, and their performance in school could improve. There could also be improvement in the self-esteem for children previously ridiculed or bullied for being obese. Information obtained from parents could be used to enhance policy statements and policy implementation. The impact for governments could result in savings on health care budgets due to reduced risk of individuals developing NCD and putting a strain on the national healthcare budget. This is particularly true for Jamaica because healthcare is funded 100% by the government for persons accessing public healthcare institutions. On the global platform, successes from this study in the Jamaican landscape could be further investigated for implementation with other populations.

### **Summary**

Parental support for school-based programs to control childhood obesity can be an important factor in stemming this growing health problem. How parents view the fluffy culture that prevails in Jamaica and their willingness, or not, to support school-based health programs could determine the success of these programs. The findings from this study can enhance current country-wide initiatives to prevent or abate the growth of childhood obesity in Jamaica, which would indeed be a positive social change.

## Chapter 2: Literature Review

### **Introduction**

In 2013, 42 million children under 5 years of age were either overweight or obese (WHO, 2015a). Childhood obesity is a health issue of concern to both developed and developing countries. However, childhood obesity is more than 30% higher in developing countries (WHO, 2015). Children in low- and middle-income countries are more at-risk for consuming high-caloric diets, which increases their risk of becoming obese (WHO, 2015). According to the WHO (2015b), obesity is preventable, but it has more than doubled since 1980. Under the leadership of the current Minister of Health, the government of Jamaica has warned against the adverse psychosocial and economic effects associated with obesity, such as being bullied, low self-esteem, and the development of NCD that can lead to high medical bills (MOHW, 2017). Recently, the Jamaican Minister of Health proposed increasing taxation on sweetened beverages as an indirect way of curtailing obesity among the population. Sweetened beverage use among adolescents in Jamaica is high. According to a report, 71% to 75% of females and males ages 13 to 15, respectively, consume one or more sweetened beverages daily (WHO, 2014). Exacerbating the problem, a significant portion of the population indicated that they engage in low levels of physical activity and the reports of familial, NCD, such as diabetes, are also high (Wilks et al., 2008). Given the magnitude of the problem, the WHO has mandated all countries to actively engage in childhood obesity prevention activities.

The purpose of this study was to explore parent support for school-based health programs to reduce childhood obesity. Management of childhood obesity must take a whole-of-government and whole-of-society approach (WHO, 2016). Governments have the capability of implementing school-based health initiatives to promote healthier lifestyle choices, such as diet and exercise (WHO, 2016). Parents play an invaluable role in the whole-of-society approach; parental support for school-based health initiatives can potentially curtail childhood obesity in Jamaica. A joint effort between schools and parents, where responsibility is shared, is the cornerstone to the successful implementation of school-based health programs (WHO, 2016).

### **Relevance of the Problem**

Task forces and numerous programs launched in Jamaica aimed at eliminating childhood obesity have not reduced its incidence or prevalence, causing the government to be on a continual search for impactful initiatives (MOHW, 2013). Knowledge is an important component of a healthy lifestyle; a parent's perception can influence their intentions to support healthy lifestyle behaviors for their children, and their belief systems serve to inform their behaviors (Sylvetsky-Meni et al., 2015). Dr. Alafia Samuels, Director, Chronic Disease Research Centre at The University of the West Indies, stated that health education is a necessary tool to create an environment conducive to healthy eating choices (as cited in Richards, 2016). Lai-Yeung (2015) inferred that the home and the school environment, under the legislation of government personnel, should work together to foster an environment favoring healthier food choices for children.

Adults are influential figures in the lives of children, helping to shape their way of life (Peters et al., 2014). According to Bergstrom et al. (2015), the home and school environments are two important social settings that contribute to the development of healthy habits in children. To support the claim that adults play a role in curtailing childhood obesity, Marzuki et al. (2015) inferred that the nutritional knowledge and food consumption attitudes of adult figures in the lives of children is important in the fight against childhood obesity. A representative from the Ministry of Health, Jamaica, suggested that children live in an obesogenic environment with access to mostly food of low nutritional value, contributing to growing rates of childhood obesity (Hibbert, 2018). By providing parents with much-needed nutritional/dietary information, school-based health initiatives have the potential to address, and potential reverse, this problem.

There are numerous factors that can influence parents' understanding of the need and, ultimately, their support for programs to reduce childhood obesity. According to a past chief medical officer in the Jamaican Ministry of Health, the prevailing culture of overweight acceptance (commonly referred to as fluffy) may explain why the problem of obesity persists in Jamaica (Cunningham, 2014). Being fluffy is a phenomenon whereby obesity or being overweight is seen as a good thing, as pleasing to the eyes. In particular, the overweight or obese body-type in females is adored by some in the society. Though not yet documented empirically, concerns about cultural acceptance of obesity were again raised recently. At the "Jamaica Observer Your Health, Your Wealth Symposium," a local physician emphasized the dangers of the cultural affinity for the fluffy phenomenon (i.e., the appeal of the overweight and/or obese body-type) in Jamaica (Jamaica Observer,

2017). Although her main message drove home the point that overweight body types are not healthy, local newspapers captured attitudes expressed in response to the doctor's admonishments, including "the doctor doesn't know what she is saying, fatness all the way" and "skinny people have just as many illnesses as thick people" (Jamaica Observer, 2017).

The embrace of "baby fat" as appealing is similar to the appeal of fluffy; however, unlike the persistent appeal of fluffy, the "baby fat" phenomenon is now falling out of favor (Jarvie, 2016). According to the Urban Dictionary (2004), baby fat is the "fatty tissue which one has from childhood but will outgrow upon reaching physical maturity." Baby fat is no longer thought of as a passing phase that children will outgrow as they get older; there are concerns about the overweight baby or child who will become an overweight teen or adult. According to Jarvie (2016), some mothers are now more aware of the dangers of having overweight babies and are committed to taking corrective measures to prevent that occurrence. However, other mothers have claimed that an overweight baby is not their doing, claiming further that as soon as those children become active, they will lose the excess weight. In support of claims that lifestyle change alone will not contribute to a baby's weight, some have argued that a child's weight is determined genetically by their parents' predisposition (Jarvie, 2016).

Mothers are held culpable for their child's obesity given their oversight role in the food environment and home management (Anti et al., 2016; Power et al., 2015). According to Power et al. (2015), some mothers have openly disregarded dietary guidelines and have encouraged their children to continue eating even after the children

openly stated they were full. This practice negatively impacts internal cues of fullness while fostering overeating, an action that can lead to overweight or obese children. Preventing child obesity should not be the responsibility of mothers only; fathers should also be held accountable. Anti et al. (2016) found that some fathers refused to accept the overweight or obesity status of their children and undermined efforts to adopt healthier lifestyle changes. In those specific instances, fathers ought to be held culpable for not supporting this adverse growing trend among children. Additionally, the Jamaican MOHW has advocated for a whole-of-government and whole-of-society approach to fulfill the country's mandate to control childhood obesity. Anti et al. recommended future research to explore a "whole-of-family" approach aimed at controlling childhood obesity. This recommendation supports the purpose of the study to explore parents' support for school-based health programs for children.

In this chapter, I review studies showing the interaction among thoughts, behavior, and intention, with an emphasis on health behavior. The literature related to school-based health programs is also reviewed. A review of studies conducted outside of Jamaica exploring the support or lack thereof towards school-based health programs for children is presented. The TPB and findings from studies informed by this same conceptual framework is discussed as will the literature related to key concepts. The chapter ends with a summary of the information presented.

### **Literature Search Strategy**

I searched for information from PsycInfo, PsycArticles, PsycExtra, Proquest Central, PubMed, Thoreau, CINAHL Plus with full text, EBSCO and Sage Journal, and

Science Direct. Google Scholar was also used; the search engine aided with citations and finding additional references. Pertinent data from references were used in the current study; the references were found in articles from the databases listed above. *Childhood obesity, parental attitude, parents' thoughts and behavior, intention, attitude, behavior, Jamaica, theory of planned behavior, school-based health programs, health promotional activities, and knowledge* were some of the main terms researched for this study.

Combination search concepts included *parents' thoughts and behavior towards childhood obesity, parental attitudes toward childhood obesity, thoughts and behavior towards school-based health programs, and health promotional activities for children in Jamaica*. Peer-reviewed literature from academic journals published 2010 to the present were used. *International Journal of Behavioral Nutrition and Physical Activity, PLOS ONE, Elsevier, BMC Public Health, and Journal of Nutrition Education and Behavior* were some of the journals that provided information for this literature review. Data from government and international organizations, such as CDC, MOHW Jamaica, and WHO support the literature review section of this study.

### **Theoretical Foundation**

In this study, I explored the phenomenon of childhood obesity and the experience of interpreting the seriousness by parents, guided by the TPB. According to Anti et al. (2015). curtailing childhood obesity becomes challenging when parents insist their overweight or obese child is not unhealthy. The theory of reasoned action (TRA) was developed to address failures of traditional attitude measures to predict specific behaviors (Fishbein, 2008). The TRA determined that people are good predictors of their own

behavior, with an emphasis on attitudes toward behavior and subjective norms as factors influencing behavioral intentions and the behavior itself. In other words, the TRA suggests that the attitude one holds toward a given behavior and that individual's perceptions of how referent individuals feel about the behavior are the predictors of intention to and engagement in the behavior. However, that prediction appears to hold true only for behaviors that are under volitional control; it was later argued that some actions needed for the behavior to occur were beyond the individual's control, reducing the likelihood the desired behavior would be executed (Fishbein, 2008). That argument led to exploration of the impact of control beliefs on behavior intention and behavior performance. The TPB evolved from the TRA. TPB differs from TRA as it includes the component of perceived behavioral control not included in TRA (Boslaugh, 2013; Montano et al., 2008). The TPB developed by Ajzen in the 1980s is widely used in studies related to health behaviors.

According to Brewer and Rimer (2008), behavior reflects value; that is, whatever a person holds valuable or has a positive attitude towards, the more likely they are to engage in the behavior that evokes positive feelings. Predicting an individual's intention to engage in a behavior is a focal position of TPB (Ajzen, 2002; Montano et al., 2008). An individual's intention is described as their motivation or drive towards a given behavior; the behavioral outcome is influenced by that motivation and perceived ability to overcome challenges in achieving the behavior. Motivation to engage in the behavior can also arise from external sources such as family members and other influential persons. TPB is embodied in three belief systems: (a) behavioral belief, (b) normative

belief, and (c) control belief (Ajzen, 2002, 2004). Behavioral beliefs are the thoughts and feelings held about the behavior; they can be positive or negative. Behavioral beliefs also take into consideration feelings about the possible outcome of the behavior. Normative beliefs are an individual's perception of how referent people feel about the desired behavior and if the desired behavior should be performed. Control beliefs are the perceived support or impeding factors that can impact intention to engage in the behavior. The three systems work together to influence the formation of intention to engage in a specific behavior at a specific time and, ultimately, the execution of the behavior; according to Andrews et al. (2010), behavior intention is the most important predictor of future behavior.

### **Behavioral Beliefs**

Behavioral beliefs are positive or negative feelings and thoughts held about the behavior and the possible outcome of the behavior (Ajzen, 2004). Those behavioral beliefs then influence one's attitude toward the behavior. Hence, if the behavioral belief about engaging in healthy choices for children is negative, it is more likely that the attitude toward healthy choices for children will be negative. An attitude toward the behavior is also influenced by the perceived outcome of the desired behavior, that is, the feelings and thoughts held about the behavior taking place and possessing the wherewithal to facilitate its occurrence. For example, a parent may feel that engaging in a school-based health program may not influence their child's body weight because the body weight is not related to what is consumed but instead could be linked to genetic

factors (i.e., predisposed to being ‘big-boned’). This belief about the outcome may shape parents’ negative attitudes towards school-based health programs.

According to the behavioral belief system, one’s attitude influences their intention to execute a given behavior. Behavioral intention is the individual’s motivational drive to engage in a specific behavior at a given time. For example, TPB predicts that attitude and motivation are factors that will influence parental intent to support school-based health programs. Therefore, if parents prioritize their own attitudes towards school-based health programs rather than how referent others believe they should behave and if they feel there are no identifiable factors preventing them from supporting the school-based program, then their attitude will be the greatest predictor of intention and behavior.

### **Normative Beliefs**

Subjective norms and normative beliefs are influenced by social norms that are considered the norm or customs for specific groups of individuals (Ajzen, 2002). Normative beliefs are the feelings individuals hold about how referent others expect them to behave in a given situation (Ajzen, 2002). Referent persons can be significant others, such as parents, partners, church leaders, and community leaders, and their views will likely determine the desirability of a given behavior. Significant others’ support or lack of support will influence the individual’s intention to execute a given behavior in the future. For example, a spouse or grandparent may feel it is good for children to be overweight because in some cultures being fluffy is a sign of good health. Those views could strengthen a parent’s lack of interest in supporting school-based health programs.

According to the TPB, subjective norms can be predictors of intention. Ajzen (2014) argued that perceived social pressures exerted by subjective norms can potentially influence an individual's intention to engage in a desired behavior. If the individual values the concerns or perception of the referent other towards a desired behavior, the individual's intention towards the desired behavior could be favorable. Such a favorable intention towards the behavior could positively impact a phenomenon, like eliminating the problem of childhood obesity. For example, government and school officials may ban the distribution of sweetened beverage in schools; parents would then be more inclined to holding a favorable intention toward that behavior if significant others in their lives also support that initiative.

### **Control Beliefs**

#### **Perceived Behavioral Control**

Control beliefs, the third and final belief system of the TPB, explains the relationship between perceived behavioral control, intention, actual behavioral control, and behavior. Control beliefs are feelings and thoughts held by an individual about perceived factors that could hinder or support a behavior (Ajzen, 2002). Control beliefs directly influence perceived behavioral control, which can exert influence on behavioral intention to execute the behavior. According to TPB, some human action is not under volitional control, and for this reason, it is important to understand the additional factors that can influence intention and behavior (Ajzen, 2002).

Perceived behavioral control occurs when an individual feel empowered or restricted from engaging in a behavior; it speaks to an individual's perception of control

over factors, real or imagined, that have been identified in relation to the desired behavior. Perceived behavioral control also takes into account the level of ease or difficulty the individual perceives they may experience when engaging in the desired behavior. For example, a parent who perceives their child's body weight is related to factors outside their control, such as genetics, may feel powerless to support an activity to reduce the child's weight; this will likely result in a lack of motivation and intention to support school-based programs aimed at curtailing childhood obesity. Perceived behavioral control, then, embodies feelings of self-efficacy, namely one's belief in their ability to achieve a desired objective (Ajzen, 2002). TPB is a theoretical foundation that supports behavior change suggesting that certain factors influence intention and behavior. According to Ajzen (2002), intention is an antecedent to behavior, additionally, perceived and actual behavioral control can directly influence behavior and attitude towards behavior and subjective norm can also impact intention. Intention is a person's decision to engage in a behavior and perceived or actual behavioral control is a person's belief they can perform the behavior. Perceived behavioral control can influence intention and it can bypass intention and exert a direct influence on behavior (Ajzen, 2002). For example, a parent may support a school health initiative (such as taxation on beverages) because there are no identifiable factors preventing engagement in that behavior.

### **Actual Behavioral Control**

Actual behavioral control can exert a direct influence on behavior. Actual behavioral control speaks to factors for which the individual is directly responsible and relates to the performance of the desired behavior, e.g., does the individual possess the

required skills and have access to the resources needed to carry out the desired behavior (Ajzen, 2002). Actual behavioral control leads directly to engagement in the behavior. Actual behavioral control can influence perceived behavioral control and thereby influence behavior (Ajzen, 2004). For example, possessing the right skill sets and having the knowledge to empower oneself about the harmful effects of childhood obesity can empower a parent, leading to the identification of factors supporting a desired behavior and facilitating the parent taking steps to achieving their desired goal. In another example, a parent may not know what constitutes healthy lifestyle choices because of myths and misconceptions from interactions with their peers; they may shy away from and even refuse to participate in school-based programs because the information being shared goes against their belief systems. Actual behavioral control can also be seen if a parent decides not to support a school-based health program on grounds they do not have the financial resources needed for school-prepared lunches. The tenets of the TPB demonstrate the interplay of factors implicated in the intent to engage in a specific behavior, and as such, add valuable information to understanding what may be needed to gain parents' support in the fight against childhood obesity.

### **Support for the TPB**

Studies that have used TPB to explain health-related behaviors will be reviewed here. McDermott et al. (2015) conducted a meta-analysis to examine the association between specific elements of the TPB and food choice behaviors (i.e., intention, attitude, subjective norm, and perceived behavioral control). According to McDermott et al. (2015), TPB predicts that an individual with high intention and a positive attitude toward

health promoting behavior would consume healthier food options given that their significant others support the behavior (i.e., subjective norm) and, further, that consuming healthier foods poses no difficulties (i.e., perceived behavioral control). Food choice behavior was identified as either health promoting or health compromising. Health-promoting behavior occurs when individuals choose lower energy-dense and nutrition-rich foods, while health-compromising behavior involves consumption of highly palatable, calorie-dense, or high-fat foods. Demographics (i.e., age and gender) were also included. Results revealed a significant interaction between subjective norm and perceived behavioral control with intention, suggesting that if participants felt that significant others supported the selection of healthier food choices and there were no personal challenges to selecting healthier foods, their intention to engage in that behavior would be positive or high. A second interaction was found between perceived behavioral control and intention with the desired behavior, suggesting that with no foreseen difficulties to selecting healthier food choices as well as having an intention to engage in the behavior, participants would be more likely to select healthier food choices. And, finally, a significant interaction between attitude and intention with the desired behavior, suggests that participants with positive attitudes toward healthier food choice behavior and personal intention to support the behavior would likely select healthier food choices. None of the associations found were impacted by participants' gender; however, age did appear to have an impact: a significant correlation between intention and behavior was found, suggesting that when younger participants held positive or good intentions toward healthier food choices, the desired behavior is more likely to occur.

TPB can also predict negative behaviors. In a survey with 398 undergraduate students, Norman et al. (2006) used intention, attitude, subjective norm, and perceived control to examine the relationship between binge drinking and past binge drinking; the students were required to complete pre- and post-questionnaires. An initial questionnaire (Time 1 questionnaire) was completed and a second one (Time 2 questionnaire) a week later, assessing binge drinking behavior in the previous week. Consuming specified amounts of alcohol in a single session was defined as binge drinking and past binge drinking included a measure of frequency. TPB would predict that an individual's determination (intention) to participate in a behavior is influenced by feelings toward the behavior (attitude), the social pressure from significant others to perform the behavior (subjective norm), and ease or difficulty perceived in carrying out the behavior (perceived behavioral control). The TPB posits that low perception of control is associated with negative behavior, therefore, it is expected that binge drinking (a negative behavior) will be associated with low perception of control. Self-efficacy, another variable, addresses one's belief in his or her ability to perform a given behavior and may be as important as perceiving ease or difficulties (perceived behavioral control) to engage in the behavior, i.e., the student may feel they do not have the ability to resist binge drinking; age and gender were also included.

Results showed that intention, subjective norm, self-efficacy, and perceived behavioral control (i.e., low perception of control) correlated with binge drinking intention and behavior. Therefore, with a prior determination to binge drink coupled with the support from significant others and feeling empowered, the students were more likely

to hold a positive attitude toward and engage in binge drinking. Additionally, a significant correlation between binge drinking and low perception of control was noted but not for past binge drinking, suggesting that other factors could have impacted past binge drinking. The results also revealed relationships with intention to binge drink, past binge drinking, and age; however, no relationship was reported with gender. According to Norman et al. (2006), early recognition of factors that can negatively impact healthier outcomes can lead to early preventive and curative interventions. Relevant to the study I propose, the impact of past supportive attitudes and behavior toward the fluffy and baby fat phenomena may increase negative attitudes toward the required diet and exercise and, thereby, reduce intent to support school-based health programs for children.

Andrews et al. (2010) used the framework of TPB to investigate parents' role as health promoters for children. TPB constructs included attitude, intention, subjective norm, and perceive behavioral control; while the health promoting role of parents involved providing healthy foods, limiting unhealthy foods, and limiting TV viewing hours for children. Another variable response efficacy was also included. Response efficacy was measured as parents' perceptions of their efforts at providing healthier options for their children and whether their efforts would have the desired effect. Information was gathered from 201 parents of children ages 2 to 5 years, with online or paper questionnaires. According to Andrews et al. (2010), parents play a very important role in shaping healthy lifestyle choices for their children; TPB predicts that if parents have an intention to support healthier food options for their children and limit sedentary activities, then they will hold a more positive attitude towards providing their children

healthy foods and options. The prediction will be reinforced if there is also support from significant others (subjective norm) for engaging in the behavior, as well as parents not foreseeing any challenges (perceived behavioral control) to selecting healthier lifestyle choice. Andrews et al. hypothesized that parents' attitudes, perception of subjective norm, and perceived behavioral control will predict their intention and behavior required to be health promoters for their children. Results suggest that with a positive attitude, support from significant other, and no perceived challenges, parents will provide their children with healthier foods, limit unhealthy foods, and limit TV-viewing time. Additionally, if parents believe that their action will support healthy weight for their children, they are more likely to engage in behavior that will support healthier lifestyle choices.

In another health-related study Quinn et al. (2011) utilized TPB to better understand the clinical trial decision-making process. A qualitative design was used to interview 21 lung cancer patients. The interview was guided by the following questions: (a) experience with the diagnosis of lung cancer, (b) beliefs and attitudes about clinical trials, (c) perception of control or input in the decision to accept or decline a clinical trial, (d) thoughts on how the decision was made, including the role of others in the decision, and (e) satisfaction with the decision made about the clinical trial (Quinn et al., 2011, p. 643). Quinn et al. (2011) posits that a patient's intention to participate in a clinical trial is influenced by how they feel (attitude) about the activity, if they have support from significant others (subjective norm) to participate in the activity, and the perception of challenges to participation (perceived behavior control). Clinical trial participation

(participated or declined) was the dependent variable. Demographic information (age, gender, and ethnicity) for patients was also assessed. Findings suggest that attitude, subjective norm, and perceived behavioral control were all cited as influential factors in a patient's decision to participate or decline clinical trial participation. For patients with positive attitudes toward participating in clinical trials, support from significant others to engage in clinical trials, and if there were factors negatively affecting feelings of inhibiting participating in clinical trials, patients were more likely to support attending cancer-related clinical trials. For example, patients who reported that significant others did not support their inclusion in clinical trials did not participate and vice versa. No correlation was reported with age, gender, or ethnicity.

Childhood obesity programs may abound but understanding rationale for their uptake is important. Kaiser et al. (2018) surveyed 270 Mexican heritage parents to determine which factors influenced their attendance in childhood obesity prevention classes. The study was guided by constructs of TPB (attitude, subjective norm, and perceived behavioral control); it was hypothesized that attendance to obesity classes would be predicted by a parent's attitude toward attending classes, the views of significant others (subject norm) about attending classes, and any thoughts held about possible challenges (perceived control beliefs) that could interfere with class attendance. The authors suggested that health motivation, income, age, acculturation, education, marital status, and employment were other variables that could influence class attendance. Health motivation was defined as the parents drive or desire for healthy children, i.e., the parents would be motivated to make sure their children were the

approved weight for their age. Findings show TPB predicted that parents with positive attitudes and support from significant others were more supportive of attending the obesity prevention classes. Results show, further, that married older parents with minimal acculturation were more likely to attend classes. However, no predictive association was reported between perceived behavioral control and class attendance. The results also failed to predict a relationship between income, BMI, health motivation, and class attendance. The results from this study could lend support to the usefulness of TPB in explaining requirements for behavior change resulting in obesity control for young children.

Employing a mixed-methods design, Choy et al. (2018) examined the attitudes and beliefs associated with parents' ( $N = 37$ ) rationale for giving sugar sweetened beverages and excessive juice consumption to young children and their intention to promote healthier choices. Employing the constructs of TPB, survey and interview techniques were used to guide the process. Choy et al. (2018) hypothesized that parents with an intention to support reduction in beverage consumption and a favorability (attitude) toward healthier lifestyle options are more likely to engage in that behavior if they (a) see the benefits of that behavior, (b) garnered support from significant others to engage in the behavior (subjective norm), and if (c) there are no challenges inhibiting them from supporting the behavior (perceived behavioral control). Results suggest that parents who are favorable to reducing sugar-sweetened beverage consumption and improving dietary choices, coupled with support from significant others and no obvious challenges will be more likely to make dietary changes to improve the health status of

their children. TPB is an appropriate framework for this study in that it can help explain persistent support for the fluffy culture and baby fat phenomenon, both of which impede actions needed to tackle the obesogenic culture in Jamaica and offer insights into building parental support for school-based health programs.

### **Literature Review Related to Key Concepts**

#### **Childhood Obesity Globally**

Childhood obesity remains a persistent health issue in the 21st century. Body Mass Index (BMI) is an approved measure for overweight and obese children; a similar standard exists for adults, but demarcations are done by age and gender specifications, meaning that the BMI of an eight-year-old male child would be compared to another eight-year-old male child and not an eight-year-old female child (CDC, 2018b). BMI gives an idea of a person's body fat mass, and it is calculated using weight and height by dividing one's weight in kilograms by their height in meter squared [BMI= weight (kg)\height (m<sup>2</sup>)]. According to the WHO (2018), BMI score aids in determining the weight classification of a child, ranging from underweight to obese. A child is considered overweight when their BMI is between the 85th to 95th percentile, and obesity occurs when the BMI is the 95th percentile or greater than other children of similar age and gender (WHO, 2018). Therefore, if a child's weight falls in the 95th percentile it means that their weight is greater than 95 out of 100 children of similar gender and age and less than only five of the same 100 children (CDC, 2018b).

According to the WHO (2019), existing in a low- or middle-income country increases vulnerability to obesity due to factors related to prenatal care and support and

poor child and infant nutrition. The WHO (2019) reports that obese children and adolescents are predisposed to medical (e.g., Type 2 diabetes, hypertension, asthma, bone issues and fractures), psychological (e.g., low self-esteem, depression), and social consequences (e.g., social isolation). High BMI percentiles heighten the risk of becoming obese or overweight and increases the chance of developing a non-communicable disease (NCD) such as diabetes and cardiovascular disorders. Social consequences such as low self-esteem from being bullied and poor academic performance because of missing classes can have devastating effects on an overweight or obese child's future outcome. Obesity at these early developmental stages can continue into adulthood, which further heightens the medical, psychological, and social burdens for the individual and the larger society. The burden on the larger society can be either direct or indirect; the direct impact can be observed through healthcare utilization and indirect could see persons not being able engage in the formal workforce (Lehnert et al., 2013). In Jamaica, healthcare is free of cost to anyone visiting any government healthcare facility, in this scenario anyone visiting a healthcare facility for obesity related issues will not be required to pay out of pocket, their healthcare cost will be borne by the health budget of Jamaica, resulting in what could have been an avoidable healthcare cost. Obesity is an avoidable health condition. The Center for Disease Control and Prevention (CDC) breaks down the health issues associated with childhood obesity into two categories, immediate and future health risk; the immediate issues are linked to the development of NCDs and psychological issues while the future health risks are those that start in childhood but persist into adulthood (CDC, 2016).

Engaging in physical activity has the potential to reduce or prevent obesity, but the lack of it can support the increase in obesity rates (WHO, 2019). More than half of the world's population does not engage in adequate physical activity. Lack of physical activity affects a child's alertness and concentration. Sedentary behaviors include watching television or using electronic devices for prolonged periods, even sitting in one position for prolonged periods while doing schoolwork, is considered sedentary behavior (WHO, 2019).

Ezzati (2017) engaged in a comprehensive population-based metanalysis consisting of 128.9 million children 5 to 19 years from among 200 countries, including the Caribbean. The study sought to explore trends in various body weight concepts (underweight, overweight, and obese) of children and adolescents, taking into account their rural and urban place of residence and the use of BMI rating scales later compared to the body weight of adults. The authors found that in the early twentieth century, high-income countries saw a plateau in childhood obesity rates, although the percentile rates of children were still considered higher than normal. The normal BMI for children falls between the 5<sup>th</sup> to 85<sup>th</sup> percentile; anything below that is considered underweight while anything above would be either overweight or obese. According to Ezzati (2017), the apparent gains in weight management were due to specific initiatives like school-based health programs, including the plateauing of childhood obesity rates; the same did not occur for low- and middle-income countries. The trend noted among low- and middle-income countries was a high incidence of underweight children; however, Ezzati (2017) projected a shift from underweight to obesity in low- and middle-income countries by

2020, owing to increased availability and consumption of energy dense foods. For this reason, the authors argue that developing regions such as the Caribbean should employ mitigation interventions to reverse this projection.

Given that childhood obesity remains a persistent global health concern well into the 21<sup>st</sup> century, Wang et al. (2012) provided a universal description of its prevalence and time trend, taking into account the association between childhood obesity and socioeconomic status (SES). It appears that globally, SES can influence diet, exercise, and other health-related lifestyle behaviors; this is because low-SES limits individuals' access to nutritional food exercise resources (Wang et al., 2012). Although obesity is linked to SES, there are variations based on gender, age, and country. For example, in earlier years, children from households with more money and those from urban areas are more likely to be obese in developed countries; however, Wang et al. (2012) noted an increase in overweight and obesity rates in developing countries (such as China and Brazil) where rapid economic changes were observed. A change from low to higher SES can lead to lifestyle changes that may not be favorable, e.g., more consumption of fast foods and less walking because people can afford cars (Wang et al., 2012).

On the other hand, in some developed countries, the prevalence of obesity was higher among children from less affluent families, showing the complexity of this health issue and the need for continued research in the area (Wang et al., 2012). Data were collected globally from Europe, Asia, Africa, and the Americas showing that in 2010, approximately 43 million children were classified as overweight or obese, with 35 million coming from developing countries (e.g., China, Malaysia, India, Brazil, Mexico,

and South Korea). Although childhood obesity was more prevalent in the developed countries compared to developing countries, in the last two decades that trend has eroded; the combined rates for overweight and obesity in the developing world in 2010 was 6.1%, but by 2020 this rate is expected to rise to 8.6% (Wang et al., 2012).

Ludwig (2018) writes that the outlook for a decline in childhood obesity does not look good. An analysis of the data collected nationally in the USA between 1999 and 2016 among children 2 to 19 years showed no decline in the prevalence of childhood obesity; there was, however, an increase noted for some in the population. The disparity detected occurred along ethnic and racial divides; there was a two to a four-fold prevalence of obesity among African American and Hispanic children when compared to their white counterparts (Ludwig, 2018). The author recommends that detailed analysis of obesity trends and robust public health approaches be undertaken to assist in the fight against childhood obesity. There was also a call for collaboration between school and home to combat this growing public health problem. In the school, children and their families should be taught the advantages of healthier options, such as reducing sweetened beverage consumption and engaging in structured physical activities; these initiatives should also be enforced in the homes. For countries interested in curtailing childhood obesity, multiple interest groups must be involved such as government groups, schools, and friends and families, including governmental and other key stakeholders' strategies and policies that support the reduction and elimination of childhood obesity (Ludwig, 2018).

The stance against childhood obesity should start in early childhood. Lanigan et al. (2019) explored the possible cause of childhood obesity, identification of at-risk children, implications for health, prevention strategies, and treatment options for children in the United Kingdom (UK); they posited that the antecedent for obesity occurs in early childhood, arguing that obesity is linked to interactions between genes and environment such that a high familial history of obesity coupled with an environment that supports inactivity and the consumption of energy-dense foods may increase the risk of being overweight or obese. The authors identified some early contributors to childhood obesity such as being formula fed as opposed to being breast-fed, an overweight or obese parent, and early introduction to solid foods. Being overweight or obese as a child increases the risk of obesity in adulthood and the development of NCD such as diabetes and hypertension. Curtailing childhood obesity requires a multi-component approach and should include groups such as schools, government, and parents.

In addition to medical consequences, the relationship between childhood obesity and mental health has become a global concern. According to Small et al. (2016), mental health issues associated with childhood obesity are not restricted to a psychiatric diagnosis but can involve psychological challenges such as negative body image perception, being bullied, and negative school experiences. Sahoo et al. (2015) also support the claim that childhood obesity issues expand beyond medical challenges; they cite social, emotional well-being, and self-esteem issues as factors that can affect overweight or obesity in children. While programs have been designed to abate childhood obesity, not much has been done to deal with the mental wellness component. The right

team and the right approaches are needed for a complete revolutionary look at eliminating childhood obesity (MOHW, 2013).

Academic outcomes can also be impacted by childhood obesity. Exploring a large data set collected during 2011 to 2012 from the National Survey of Children's Health (NSCH) in the United States, Carey et al. (2015) sought to understand the impact of increased BMI on academic performance. It was hypothesized that there is an association between BMI status and school/academic outcomes; measures of school/academic outcomes included absenteeism, school problems, repeating a grade, and decreased engagement with school. Additionally, overall health and healthcare visits were used to predict school outcomes. The results revealed that all educational outcomes were associated with BMI status, including overall health and healthcare visits (Carey et al., 2015). According to Carey et al. (2015), school absenteeism was predicted by children with higher BMI or, alternatively, absenteeism could be due to poor health or healthcare visits. The results also revealed that children who had higher BMI were more likely to repeat a grade and were under-engaged in school participation. Based on their results, Carey et al. (2015) concluded that overweight and obese children were more likely to experience problems at school. The adverse effects of childhood obesity are not just long-term medical ills, but as the results showed, immediate negative effects can impact a child's academic future (WHO, 2019; Carey et al., 2015). Carey et al. (2015) surmised that school-based health programs can have a positive impact on addressing the negatives associated with this phenomenon, and these programs must form a part of any governmental or society-wide initiative.

## **Medical and Financial Cost of Obesity Globally**

In addition to the medical and psychosocial consequences, studies have remarked on the financial costs of childhood obesity (Pearce et al., 2014). Finkelstein et al. (2014) looked for answers to the lifetime medical costs associated with childhood obesity from among six USA-based studies published within the last 15 years. The cost of childhood obesity can be direct or indirect and outweighs that of normal weight children.

(Finkelstein et al., 2014). It has been extrapolated that direct medical costs for a cohort of 10-year-olds amounts to a conservative nine billion dollars, whereas the cost to prevent childhood obesity for one of those 10-year-olds could cover their tuition for more than one year in a public college. The direct cost of obesity includes, but is not limited to, treatment for medical conditions such as diabetes and cardiovascular diseases (Finkelstein et al., 2014) while indirect cost results from situations like losses due to low self-esteem and poor performance in school resulting from obesity-related stigma (MOHW, 2017). Although the lifetime medical cost is higher for obese adults than obese children, it remains important to abate childhood obesity given that obese children are likely to become obese adults (Finkelstein et al., 2014).

Costs associated with childhood obesity can have a high budget impact on a government's public purse. To add to the existing body of knowledge related to the costs of childhood obesity, Black et al. (2018), investigated the medical-costs burden of childhood obesity on the government purse in Australia. Replicating a study (Cawley et al., 2012) conducted previously in the U.S., Black et al. (2018) used the "BMI" of a parent to generate a prospective outlook on the potential budget impact of childhood

obesity in Australia extrapolating from costs associated with adult obesity. Results supported claims that childhood obesity produces a high financial impact on the country's national budget compared to normal weight children six to 13 years of age; the medical costs for overweight children was 28% more while the medical costs for obese children was 45% more annually and represents about \$43 million AUD annually (Blacks et al., 2018). The study also found that parents' BMI does impact the weight status of their children; overweight or obese parents tend to have overweight or obese children, which can lead to higher medical costs compared to normal weight children (Blacks et al., 2018).

Sonntag (2017) sought to justify the increased attention being paid to the economic impact or burden of childhood obesity on individuals, their families, and the larger society. The author argues that previous studies related to adult obesity focused on the direct and indirect impact on the individual but failed to look at costs associated with childhood obesity, citing further that this failure does not give a true representation of the real economic burden on society. Findings showed that medical costs were eight times higher for adults with a history of childhood obesity, justifying the need for early interventions (Sonntag, 2017). Implementing programs to address childhood obesity has the potential to mitigate the associated problems such as high medical bills, impaired psychological development, and poor academic outcomes.

### **Childhood Obesity in Jamaica and the Caribbean**

The GSHS is a collaborative project among various countries (including Jamaica) and the United States CDC aimed at helping countries better understand and measure

behavioral risk factors and protective factors in 10 key areas among young people aged 13 to 17 years; data are collected using self-administered questionnaires (WHO, 2019). Because Jamaica is a developing country with concerns about the growing trend of childhood obesity, obtaining information on childhood obesity in Jamaica could prove valuable. The country's data from the GSHS reported an almost doubling of obesity rates for children aged 13 to 15 years in a five-year timespan; in 2010 only 6% of students in a local survey were obese and by 2017 the students in that category jumped to a high 10.1% (Davidson, 2018). The survey looks at numerous health issues such as alcohol use, mental health, and drug abuse; only results related to dietary behaviors and physical activity will be reviewed here. Questions related to dietary behavior examined the frequency of fruits and vegetable consumption, the frequency of carbonated beverage consumption, and recent consumption of fast food from restaurants such as Kentucky Fried Chicken (KFC) and Burger King. Physical activity questions focused on the student's mode of transportation to school, i.e., whether they walk or ride to school. Engagement in physical education (i.e., being physically active for at least 60 minute per day) and the length of time spent being sedentary, were measurements for the physical activity component of the GSHS survey; lack of adequate physical activity contributes to childhood obesity (WHO, 2019). To measure physical activity, the survey explored students' participation in unstructured physical activity, attending physical education classes, and hours spent in a sedentary state. Sedentary activities included watching television, playing electronic games, and sitting and talking with friends.

Jamaica participated in the survey in 2010 and 2017. A total of 1623 students 13 to 15 years participated in the Jamaica GSHS 2010 survey. The rate of overweight students was 21.7% while a 6% obesity rate was recorded. Of the overweight students, 25.2 % were females and 18.1% were males; of those considered obese, 6.7% were females and 5.3% were males. In both categories, females represented higher percentages than males. The results from the survey were represented as data only with no analyses or inferences. In 2017, a total of 1667 students 13 to 17 years participated in another Jamaica GSHS survey. In the 7-year span between data collection periods, increases were noted for both overweight and obese students. A total of 23.3% of students were now overweight while 9% were obese. The increasing trend continued for both females and males, 26.4 % of females and 20% of males reported as overweight. For the obese category, an increase from 6.7% to 9.5% for females and from 5.3% to 9% for males was noted. The total percentages for overweight and obese children were 25.6% and 10.1%, respectively. Among the overweight group the percentage for females was 28.2% versus 22.8% for males. A closer look at the 2017 data showed a higher percentage of obese males compared to females, 10.3% and 9.9%, respectively, reflecting a change in gender obesity rates compared to 2010 where more females (6.7%) than males (5.3%) were obese. Notable was the almost 100% increase in obesity rate for boys 13 to 15 years in 2017 (10.3%) compared to boys 13 to 15 years in 2010 (5.3%).

The Jamaican results of the GSHS (2017) revealed that more young males participated in physical activities and physical education than their female counterparts. Boys engaged in physical activities for a minimum of 60 minutes, more frequently than

girls; boys also attended physical education classes more frequently than girls. Conversely, girls spent more time engaging in sedentary activities compared to boys. Overall, more students spent more time being sedentary than being active; 56.4% indicated they engaged in more than three hours of sedentary activities, 23.2% participated in a minimum of 60 minutes of daily physical activities while only 19% attended physical activity class for three or more days weekly. The almost doubling of the rate raised concerns among personnel in the Jamaican Ministry of Health office (MOHW, 2019). Extrapolation from the data suggests there is no downward trending of body weight for children in Jamaica (WHO, 2019).

The JSLC 2016 is a joint publication of the Statistical Institute of Jamaica and the Planning Institute of Jamaica reviewing data on many constructs, including health (JSLC, 2016, 2018). Under the banner of health, an eight-tracking data sheet was presented on the prevalence of overweight children from 0 to 59 months (see Table 1). Although the data show declines in overweight status for all age groups except for the 0 to 11 months groups, this trend is not consistent. A closer look at the 13-year trend revealed various periods of decline and subsequent elevation in the overweight status for all age groups; for example, for the 24 to 35-month age group, in 2008, the reported 5.1% decreased to 1.1% in 2010 only to surge to 7.6% in 2014.

The decline in 2016 was positive but may not suggest that childhood obesity is on the decline when one takes a closer look at the peaks and troughs noted over the more than eight-year period. According to some childhood obesity management stakeholders in Jamaica, steps must be taken to control childhood obesity from an early age (MOHW,

2019; JSLC, 2018). The fluctuations in the weight percentages noted from the JSLC publication lend support to the need for more consistent decline in childhood obesity rates in Jamaica.

Measurement of adiposity is an important factor in childhood obesity. Gaskin et al. (2003) sought to examine body weight using BMI and other measures to track overweight rates between late childhood and early adolescence in a select group of children (7-8 years and 11-12 years) from inner cities (low-SES communities) in Jamaica with mixed nutritional history. The variables explored were BMI, gender, age, skin fold, percentage body fat, and fat mass; the latter three were to determine overweight or obese status. The Jamaican population for Gaskin et al. (2003) came from a past study conducted by McGregor et al. in 1991 that examined growth retardation among inner city (low SES) children. Gaskin et al. (2003) found an increase in adiposity for some children as they got older that could be linked to low security food, occurring in households where the provision of adequate nutritional support is cause for concern. Interestingly, most studies done in the developed world occur in homes with good food security, i.e., where there are no concerns about providing adequate nutritional support within the home not common in Jamaica (Gaskin et al., 2003). Low food security occurs when the foods consumed are of reduced quality, variety, or desirability for a healthy diet, whereas good food security refers to quality, variety, and desirable foods (Office of Disease Prevention and Health Promotion [ODPHP], 2019).

Another measure of adiposity in the study was skin fold measurement (fat distribution over the body and subcutaneous thickness). That construct was utilized to

determine body-size status. A person with more fat distribution and more subcutaneous mass may be categorized as overweight or obese. Gaskin et al. (2003) explored the following other measures of adiposity, namely triceps and subscapular skinfolds, sum skinfold, percentage body fat, and fat mass. It was revealed that a positive relationship existed between all of these measures and BMI (i.e., they found that if measures of triceps and subscapular skinfolds, sum skinfold, percentage body fat, and fat mass were high, BMI was also high). Some children in the study were deemed to have high BMI; importantly, BMI and other adiposity measures are good determinants of a child's body weight status. Using children's body weight and size is important, because it can help identify childhood obesity early (Gaskin et al., 2003).

In a public statement, the Jamaican Minister of Foreign Affairs and Foreign Trade highlighted some of the challenges facing Jamaica on the topic of childhood obesity; she emphasized the continued medical and economic challenges related to childhood obesity globally (Johnson Smith, 2017). The medical burden arises from the development of NCDs, as well as from associated mental health issues, that are borne by individuals, families, and the governments. The minister described Jamaica as a small developing state. According to the Minister of Foreign Affairs and Foreign Trade, the medical and mental health financial burden is poised to erode 3.9% of the Jamaican GDP annually by the year 2030, resulting in a significant preventable loss (Johnson Smith, 2017).

### **Fluffy and the Baby Fat Phenomena**

There is a cultural view among some Jamaicans that being fat or fluffy is a sign of prosperity and a good life (Jamaica Gleaner, 2017). According to the only pediatric

endocrinologist in Jamaica, the pervasive view that a child with more body weight is a sign of “good living” is doing more harm to the fight against childhood obesity and has negative implications for the child’s health (Jamaica Gleaner, 2017). The article further stated that this misconception supports giving birth to a fat baby or raising a fat child as a sign of health and a family’s ability to provide resources needed for a good life. The lingering nature of childhood obesity can be linked to over-feeding and over-eating that usually continues beyond childhood (Jamaica Gleaner, 2017).

This positive view of childhood obesity interferes negatively with efforts to curtail it (Pearce et al., 2014). There is a preference for bigger body types among Jamaicans; slimmer bodies are frowned on. A female with more body fat mass is perceived as being healthy (Pearce et al., 2014). This fondness for larger body types has been linked to cultural influences. According to Pearce et al., a difference is noted in the westernized world where smaller body types are favored. The term fluffy is local vernacular used to define overweight or obese females and is associated with a sense of confidence and sexiness. Using semi-structured interviews, Pearce et al. explored body weight perception and the associated health behaviors with a convenience sample of 30 Jamaicans. The question asked was, how do Jamaicans’ perceptions of body weight influence health behavior? The following themes emerged: Jamaicans’ perceptions of health and weight, perceptions of obesity, attitudes toward weight, and perceptions of being healthy. The dominant finding revealed that being overweight as a female was acceptable in Jamaica, as most participants felt that a plump or large body size was normal. Most participants reported that eating healthy was more expensive, reporting also

that perceived unhealthy foods were tastier and more palatable than healthier options. Most also commented that exercise was not routinely practiced, that people exercise for specific reasons such as on the advice of a medical practitioner to fix a health problem. While the study focused on adults it was reported that obesity control should start in childhood (Pearce et al., 2014).

Although medical and other consequences are associated with being overweight or obese, fluffiness is considered physically attractive in Jamaica. Though the term fluffy is a new appealing way to describe overweight or obese women in Jamaica, there is no approved measure for the construct, nor has the construct been studied much (Barned et al., 2014). While Barned et al. infer that the term is used predominantly with adult females, Jamaica's only pediatric endocrinologist suggested the term is also used to describe children. Fluffy females are not considered fat or obese and they exude a high level of self-confidence and sexiness in adults (Barned et al., 2014). Using a convenience sample of 80 university students, Barned et al. (2014) endeavored to assess and validate a measurement scale for the fluffy construct. Results showed that the scale had acceptable levels of reliability and validity. A reliability score with coefficient alpha of 0.90 was reported for the best 20 items that comprise the instrument. Results showed both concurrent validity ( $r = -0.425$ ) for the Attitude Toward Obese Persons Scale (ATOP) scale and discriminant validity ( $r = 0.293$ ) for the Bogardus Social Distance Scale (BSD) scale validity compared to the ATFW. The ATOP and the BSD were used to establish the concurrent and discriminant validity of the new Attitudes toward Fluffy Women Scale (ATFW). While this scale was designed with adults in mind, it can lend support to the

social desirability of fluffiness (Barned et al., 2014). The ATFW scale is multidimensional, which allows for a comprehensive review of the ‘fluffy’ construct (Barned et al., 2014).

Unlike Jamaica where the term fluffy applies to adult women, some Mexican American parents ascribed the term fluffy to overweight or obese children (Martinez et al., 2016). According to Martinez et al., there was a need to better understand factors related to childhood obesity among Mexican Americans living in California. Using a convenience sample of 41 Latino mothers, the authors ran focus groups to understand the cultural perceptions of children’s weight and barriers to practicing healthier lifestyles. Mothers’ cultural beliefs about health that are barriers to family health, mothers as primary caretakers of their family’s health, and attitudes toward targeting children’s weight were the emerging themes. Although participants acknowledged that fat babies were not healthy, they still preferred chubby babies as slim babies were considered malnourished (Martinez et al., 2016). It was also reported that mothers felt that working outside the home influenced their ability to maintain traditional stay-at-home caretaker roles, causing them to choose more convenient options such as ready meals or fast food, habits that contribute to high BMI among children (Martinez et al., 2016). Although mothers voiced that parents should take steps to manage childhood obesity, they did not indicate when that action was to commence.

### **Parents Lack Concern or Knowledge About Childhood Obesity**

Parents’ views about their children weight status are very important. The National Child Measurement Programme (NCMP) in England is mandated to track children’s

weight at the beginning and end of primary school. Kovacs et al. (2018) sought to assess parents' views on the role of the NCMP in obtaining the weight of children, with the ultimate aim of curtailing childhood obesity among children in England. The data were collected from online comment threads created and maintained by parents; of importance to the researchers was whether comments about the NCMP were positive, negative, or neutral. The three main themes identified were whether: (a) the NCMP had the right to investigate children's weight, (b) their action was dictatorial (representing a nanny state), and (c) their agenda was attempting to get persons to conform to a certain body size, overemphasizing weight without taking other factors into consideration (Kovacs et al., 2018).

More than fifty percent of the parents commented negatively about the actions of the NCMP; only 0.3% had a positive remark about the mandate while thirty-five percent held neutral or help-seeking views. Some questioned whether the NCMP was interfering with their role as parents, some argued that the BMI measurement scale was inappropriate for children, and some said it was not necessary to intervene or manage children's weight because it would change as they got older or intervention was only necessary for children who were very obese (Kovacs et al., 2018). According to Kovacs et al., the responders who were supportive or neutral toward the NCMP appeared to have knowledge of healthcare and recognized the importance of monitoring and early intervention in addressing childhood obesity. Additionally, the authors found that some parents who questioned the legitimacy of the NCMP action also indicated that being overweight at a young age was not a health risk unless the children were excessively

overweight or obese. These findings suggest that some parents do not view childhood obesity as concerning.

In another study undertaken with Brazilian parents and children, dos Santos et al. (2015), sought to better understand parents' perceptions of how children looked (i.e., were they perceived as being thin, normal or fat) and concerns related to excess weight in childhood. The data were collected for children 20 and 48 months from the city of Curitiba from June to December 2014, and the authors reported a high prevalence of higher-than-normal BMI among that population since 1996. The researchers indicated that parents preferred when their children had "weight" on their bodies (higher BMI); to the parents, more weight was better, because children with higher BMI can withstand illnesses better than children with lower or normal BMI. Moreover, parents perceived their overweight children as having normal, acceptable body weight (dos Santos et al., 2015). Overall, parents were not concerned about their children becoming overweight, as more than 60% expressed little or no concern, and obesity was common in the household of parents with little or no concerns (de Santos et al., 2015).

Appleton et al. (2017) sought to gain a better understanding of Australian parent's perception of childhood obesity and the health choices they make in their parenting roles; qualitative data were gathered from a 34 online parents-led discussion forum. Parents were told their decisions will impact the prevention and control of childhood obesity. The following five themes were derived from the online-discussion data: understanding of childhood obesity, another's problem, providing a healthy diet, lifestyle awareness, and who's responsible? Parents in the study demonstrated good knowledge as to what

constitutes healthy options for their children, but also expressed that they found it challenging to comply with the healthier options known to them, lending insights into the ongoing upward trend of childhood obesity (Appleton et al., 2015). Coupled with confirmation of challenges they faced, some parents expressed that individualized growing path would eventually reduce an earlier high BMI status as the children get older (Appleton et al., 2015). It was also said that the communication of a child's high BMI status was offensive to some parents, impacting how they view the information shared; for example, some argue that obesity could be related to other factors, such as genetics.

### **School-Based Health Programs**

The Ministry of Health and Wellness, Jamaica expressed concern about curtailing obesity from an early age as this is important to the long-term control and or prevention of obesity in adulthood (Williams, 2019; Bernal-Delgado et al., 2018), a concern that was raised at a public forum by the Director of Health Promotion and Education. With the mandate of controlling NCDs like diabetes, the Ministry of Health, Jamaica created the flagship initiative “Jamaica Moves,” starting in 2017. According to the director, the components of this initiative sought to teach and impact healthy eating, physical education, and age-appropriate health checks for all Jamaicans but with particular emphasis on school-aged children. In particular, the initiative wanted to empower students and teachers to making better decisions about healthy eating and choosing healthier lifestyle options, such as reducing sweetened beverage consumption and increasing water intake.

Many countries globally are engaging in various types of health initiatives in schools, such as increased water consumption, removal of snack vending machine and, but not limited to, mandatory engaging in structured physical activities. Schwartz et al., (2016) conducted a quasi-experimental study comprised of 1,065,562 public elementary teachers and students in New York, seeking to determine the effect of schools' electronic water fountain placement and usage on BMI, students' overweight and obesity status, and the purchasing of milk in the school environment. The variables of interest were BMI, overweight, obesity, demographic data, milk purchases, and water fountain use. According to Schwartz et al. (2016) at the start of the initiative only five schools had water fountains in place, but in three to four years, more than two-thirds of the schools surrounding the study population had water fountains installed. The study revealed a reduction in BMI, overweight, and milk purchases among students in schools with water fountains installed (Schwartz et al., 2016). The researchers also commented that this was not a costly venture, because water fountains had to be purchased only once.

The success of programs aimed at stopping childhood obesity is dependent on many factors. In an evaluation study done in Spain, Bernal-Delgado et al. (2018) sought to better understand a multicomponent and multilevel school-based intervention childhood obesity preventive program (POIBA Project), a childhood obesity program targeting 8 to 12-year-old children with the goal of identifying the true prevalence of childhood obesity and generating appropriate solutions. The dependent variable was the cumulative incidence of obesity measured by BMI and measurement of body fat (triceps skinfold thickness); the independent variables were socio-demographics, eating habits,

food frequency, the intensity of physical activity, and use of new technologies (Bernal-Delgado et al., 2018). They hypothesized that the incidence of obesity would be significantly lower for children in the intervention group compared to the non-intervention group. The intervention included the promotion of healthy diet and proper energy balance, engaging in at least 60 minutes of physical activities daily, minimizing screen time to two hours, and no less than nine hours of sleep daily. For Bernal-Delgado et al. (2018), the POIBA is aligned with other successful childhood prevention initiatives such as empowering children and their families with knowledge and expertise that will see them making healthier lifestyle choices (e.g., reducing screen-time and portion control); they also suggest that the school is a key setting for the primary implementation of these programs. According to Bernal-Delgado et al. (2018), their study will add to the existing body of knowledge but with additional benefits, namely that it proposes multilevel and multicomponent interventions for children 8 to 12 years old involving their families and school community. The sustainability plan of the POIBA intervention is a significant strength to a program aimed at curtailing childhood obesity (Bernal-Delgado et al., 2018).

No record was found of formalized or established school-based health programs for the control and or reduction of childhood obesity in Jamaica. However, across the world many established programs have been recorded; their challenges, successes, and recommendations have also been posited (Sanchez et al., 2016; Schwartz et al., 2016). In Jamaican schools, students are required to participate in physical education class as part of the established curriculum, though, noted anecdotally, in some settings it is not

structured nor is it mandatory. There are national conversations about the implementation of national and school-based programs to curtail the increasing prevalence of childhood obesity (MOH, 2017); however, to date, no formal documentation of the existence of a such a program was found. Seeking to curtail childhood obesity in Jamaica, the proposed study will explore parents' beliefs about their role and their thoughts about the potential for school-based health initiatives to achieve that goal.

### **Impact of Parents' Attitudes on Health Initiative**

Factors that influence how parents feel about health initiatives can impact their attitude towards such programs. In a qualitative study, Renzaho et al. (2018) sought to better understand parents' attitude toward childhood obesity prevention among migrants in Australia; health literacy, the impact of culture, and SES were constructs of interest. Knowledge plays an important role in many aspects of life, and it became evident that health knowledge is a critical part of healthy lifestyle choices where lack of knowledge could lead to inadequate obesity literacy. Low obesity literacy among the migrant population was reported with evidence including lack of concern about childhood obesity, being more perturbed when children were perceived to be underweight, preference for larger body sizes, and lack of knowledge of concepts such as portion control. There was also the view that consuming fast food, such as KFC was good, because it represented a high-status symbol; consuming large quantities of food was culturally encouraged and foods low in nutritional value was seen as a sign of prosperity.

Where other family members are involved in children's lives, their influence was also important; grandmothers and fathers were not fully supportive of health initiatives

that support weight reduction, a finding emphasizing the importance of collaborative approaches in the home when addressing issues related to childhood obesity (Renzaho et al., 2018). Although low parental involvement was reported, migrant parents did express interest in supporting school initiative health programs. Several factors could explain the lack of parental involvement: parents felt that schools were not offering enough programs to garner their support, fear related to safety for their children if and when they were to engage in these activities, and lack of knowledge about obesity prevention or control; to address the lack of involvement, a parent engagement program was launched (Renzaho et al., 2018).

To determine the role of parents in supporting health initiatives for obesity-control programs, Leichthy et al. (2015) examined the associations between parental health literacy and parental attitudes about weight control strategies for young children. Gaining a better understanding of factors that influence parents' responses to childhood obesity programs is a proactive stance (Leichthy et al., 2015). To gain this understanding the authors hypothesized the following: (a) parents with low health literacy will seek childhood obesity information from less formal or professional sources, (b) parents with low health literacy will engage in more unsafe weight control measures, and (c) parents will seek more professional recommendations to address their concerns about childhood obesity when demographics were not considered. According to Leichthy et al. (2015), findings supported all three hypotheses, emphasizing the importance of health literacy as a mainstay for interventions involving parents and childhood obesity prevention programs. Parents with high as well as those with low health literacy did seek

information on how to address their childhood obesity concerns, differing only in the source of that information. Liechty et al. (2015) recommended that in keeping with those findings, stakeholders implementing childhood obesity programs should ensure they enhance health literacy. One way to enhance health literacy is to provide parents with resources such as access to credible websites where reliable professional information can be found.

### **Summary and Conclusions**

The literature supports claims that childhood obesity remains a health concern in the 21<sup>st</sup> century, impacting children, their families, and the wider society. Studies show that children who are obese or overweight are more likely to become obese or overweight adults (Finkelstein et al., 2014). The literature also indicates that the issue of childhood obesity is not unique to developing countries like Jamaica within the Caribbean but remains an area of concern in developed countries such as the USA and United Kingdom (Ezzati, 2017; Lanigan et al., 2019; Ludwig, 2018; Wang et al., 2012). Childhood obesity concerns include medical problems such as the development of NCDs, social problems such as having low self-esteem, lower than expected academic performance, and social isolation; economic concerns were also identified as concerns resulting from childhood obesity (Bialo, 2018; Black et al., 2017; Eldimir, 2019; Gavin, 2018; Gidding, 2017). Actions to curtail childhood obesity have been employed by individuals and groups in many societies; some of these actions include implementation of school-based health programs such as banning sales of energy dense snacks.

Programs to curtail childhood obesity have reported both successes and challenges. Like other governments and advocates against overweight or obesity in children around the world, the government and advocates in Jamaica are cognizant of the increasing childhood obesity trends, the need to take actions against this phenomenon, and the need to garner nationwide support, especially from parents (WHO, 2013; WHO, 2014; MOHW, 2016; MOHW, 2016). Gaining insight into how parents feel about school-based health programs could influence success or implementation challenges for these programs; it is from that perspective that insight from the current study will be useful. The literature showed mixed reviews on parents' support for actions against childhood obesity, where some parents support actions against childhood obesity and others feeling that time will take care of overweight or obesity in children (Appleton et al., 2017; dos Santos et al., 2015; Jamaica Gleaner, 2017; Pearce et al., 2014). Successful school-based programs across the globe include enacting dietary intake guidelines, implementing structured physical activities in schools, including parents in school-based programs, and removing vending machines with processed snacks from schools (Sanchez et al., 2016). Parents' positive attitudes toward these programs will increase the likelihood of their implementation; to that end, health literacy must be promoted.

The literature did not reveal any structured school-based, obesity-control program within Jamaica; however, the government is proposing several actions that they hope will control childhood obesity. Promoted under the flagship program of the Ministry of Health, Jamaica Moves, the government proposes to target school-aged children with a program aimed at improving nutritional intake and engaging in physical activity

(MOHW, 2018). Exploring the views of Jamaican parents about school-based health programs about childhood obesity will provide new insights beneficial not only to the government of Jamaica, but also to other parents and other advocate groups hoping to abate this phenomenon. Chapter 3 described the research methodology, including the research design and rationale, role of the researcher, participant selection, procedures for recruitment, participation, data collection, and data analysis plan.

## Chapter 3: Research Method

### **Introduction**

The purpose of this phenomenological study was to explore parents' support for school-based health programs to reduce childhood obesity. Management of childhood obesity must take a whole-of-government and whole-of-society approach (WHO, 2016). Governments have the capability to implement school-based health initiatives to promote healthier lifestyle choices such as diet and exercise (WHO, 2016). Parents play an invaluable role in the whole-of-society approach; parental support for school-based health initiatives can potentially curtail childhood obesity in Jamaica. A joint effort between schools and parents, where responsibility is shared, is the cornerstone to the successful implementation of school-based health programs (WHO, 2016).

In this chapter, I provide information on the qualitative methodology featured in the study, the research design, and the rationale behind the choice for the design. I also provide details on how participants were identified, selected, and dealt with throughout the data collection process. Concepts central to the study, potential biases, issues of trustworthiness, and ethical procedures are also discussed in this chapter.

### **Research Design and Rationale**

#### **Research Questions**

The following questions guided the exploration of this qualitative research:

RQ1: What are parents' beliefs about their role in curtailing childhood obesity?

RQ2: What are parents' thoughts about school-based health initiatives?

### **Central Phenomenon of Interest**

The broad phenomenon of interest entailed Jamaican parents' experience with persistent childhood obesity within a prevailing "fluffy culture" that views overweight and obese children as a good thing, as pleasing to the eyes. Task forces and numerous programs launched in Jamaica aimed at eliminating childhood obesity have not reduced its incidence or prevalence, causing the government to be on a continual search for impactful initiatives (MOHW, 2013). A representative from the Ministry of Health, Jamaica, suggested that children live in an obesogenic environment with access to mostly food of low nutritional value, contributing to growing rates of childhood obesity (Hibbert, 2018). By providing parents with much-needed nutritional/dietary information, school-based health initiatives have the potential to address, and potentially reverse, this problem.

### **Research Tradition**

Smith and Osborn (2007) urged researchers employing IPA to emphasize the meaning or interpretation as put forward by the participant rather than rely on predetermined or abstract categories. Tenets of IPA have argued that humans are sense-making individuals inclined toward assigning meaning to their experiences (Smith & Osborn, 2007). Phenomenological research methods allow the researcher to gain a better understanding of the experience from each individual participant's viewpoint; they then look for similarities and differences during the analysis phase (Smith & Osborn, 2007). With the increasing concerns about childhood obesity in an environment where higher than normal body weight appears acceptable to many, this may be an important

phenomenon to understand from the viewpoint of those whose acceptance seems questionable.

### **Rationale for Use of Phenomenological Design**

Research employing the phenomenological design seeks to gain understanding of a specific experience or phenomenon from the perspective of an individual or group of persons who has direct or is directly experiencing the phenomenon the research seeks to better understand; in other words, it aims to obtain the subjective experience of that person or group (Patton, 2002). To understand factors related to childhood obesity, gathering firsthand information from the perspective of those experiencing the phenomenon can add value to the information currently available to Jamaican society. Phenomenological research can be done using various methods; for this study, I gave meaning to the data using the IPA. Unlike the heuristic inquiry, where the findings are presented based on the interpretation and understanding of the researcher, IPA is based on the meaning and understanding of the participant's lived experience of the phenomenon under study (Patton, 2002). The study sample included parents of either an overweight or obese child in a society that embraces fluffy (i.e., overweight is pleasing to the eye), a phenomenon that disregards the health risks associated with childhood obesity. Understanding how this lived experience influences attitudes toward school-based health programs can be insightful, hence a reliance on the IPA approach.

To gain a better understanding of why parents support or do not support school-based health programs aimed at curtailing childhood obesity in an environment with body size greater than normal BMI appears acceptable in Jamaican society, one-on-one,

semistructured, in-depth interviews were used. Qualitative research methods and techniques have been used in previous obesity prevention related research. Eg et al. (2017) used semi structured interviews to better understand how family interaction influenced adherence to information gained after participation in an obesity program among adolescent students. Like this study, Eg et al. were interested in exploring the importance of the family in supporting obesity prevention programs. In this study, I included parents of either an overweight or obese child in a society that embraces fluffiness (i.e., being overweight is pleasing to the eye), a phenomenon that disregards the health risks associated with childhood obesity. Understanding how this lived experience influences attitudes toward school-based health programs can yield insights needed for parents, policymakers, school officials, and other stakeholders interested in curtailing childhood obesity.

### **Role of the Researcher**

According to Patton (2002), qualitative research provides depth and detail about the issue under investigation, and the accuracy of the data collected is hinged on the competence, skills, and expertise of the researcher. The researcher is the primary tool for data collection. A qualitative researcher can use different methods to support data collection, for example, examination of documents, such as archived medical records, observing behavior, and interviewing participants (Creswell, 2013). They can also use tools to support the authentic recording or collection of the data, such as notebooks, diaries and journals, and audio and video recorders. Semi- and unstructured interviewing were conducted for this research. I used all the tools available for data collection and

storage. I had no prior or current relationship with the parents from schools within the intended research geographic location; however, if any prior relationships were detected, those participants were eliminated from the data collection process. As a personal bias, I think that parents have a role to play in curtailing childhood obesity and should take steps to ensure the health of their children. To show appreciation for their time, effort, and contribution to the research, each participant was given a \$25 Amazon gift card. No other ethical issues or biases were detected.

## **Methodology**

### **Participant Selection**

Unlike quantitative research methods, qualitative methods do not rely on standardized questions in predetermined categories that limit breadth and depth of participant responses (Patton, 2002). Qualitative methods provide a wealth of details from a smaller number of respondents. A purposive sampling technique is best suited for a phenomenological study because the participant should have intimate experience with the phenomenon being explored, enabling them to provide unique information (Alase, 2017). According to Patton (2002), purposive sampling has the potential to produce insight and in-depth understanding of a phenomenon rather than provide empirical generalizations. Participants can also be selected based on convenience, that is, their availability and accessibility. Alase (2017) further stated that although the sample size for a phenomenological study is small, it should be large enough to ensure credibility of the data collected but not be too large so that the essence of the knowledge desired is lost; the sample size can be between two to 25 participants. According to Patton, there are rules to

sample size in qualitative research such as what information is needed, what will be credible, and what can be done with the resources available and the timeframe within which the researcher is working.

The study included parents or persons with parental roles in the lives of overweight or obese school-aged child. These participants were able to read and understand English. They were selected from the lowest to the highest range on the socioeconomic scale, allowing for diversity of views representative of Jamaican society; diversity and variation can be valuable for a better understanding of the phenomenon under review (see Patton, 2002). The sample consisted of parents whose children were considered overweight or obese determined by a BMI for overweight between the 85<sup>th</sup> to 95<sup>th</sup> percentile and a BMI for obesity at the 95<sup>th</sup> percentile or greater than other children of similar age and gender. Because children are a protected group, they did not participate in the study.

Sampling for this study was done using three qualitative strategies, namely (a) maximum variation sampling with the goal of better understanding the variations that occur within the sample; (b) homogeneous sampling, which allowed for information gathering from the subset of the population (i.e., parents of children who are overweight or obese); and (c) snowballing or chain sampling; this third strategy allowed for the gathering of information based on recommendations from other key informants (see Patton, 2002).

There is no hard and fast rule for sample size when conducting qualitative research; however, it is important that the sample size be sufficient to allow for maximum

variation in the information gathering process (Patton, 2002). Sampling in qualitative research is dependent on factors such as resources available to the researcher, what information the researcher desires to collect, and the purpose of the study (Patton, 2002). According to Patton (2002), obtaining the desired quality and quantity in qualitative research is equivalent to data saturation. I hoped to gain data saturation from approximately 10 to 15 one-on-one, semi structured interviews. Interviews were conducted on a virtual platform, such as Zoom, or WhatsApp; all are virtual cloud-based communication platforms, facilitating face-to-face interaction over the worldwide web (see James & Busher, 2012). Conducting interviews via telephone was an alternative for the respondents who did not have the capabilities for a virtual face-to-face meeting. The expansion of internet access and the enhanced capabilities in the 21<sup>st</sup> Century means that face-to-face interactions can be done from a virtual platform, allowing researchers to interact with their participants across time, space, and from the comfort of their home (James et al., 2012). The social distancing safety mechanism aimed at curtailing the spread of coronavirus disease 2019 (COVID-19) has given increased usage to non-in-person contact and greater reliance on the use of virtual platforms for communication. This safety mechanism was imposed by governments around the world. Interviews commenced even though the desired sample size was not initially achieved; more participants were sought as the desired number was not achieved.

My intention was to collect the sample from two of the 14 Jamaican parishes, namely St. Catherine and Kingston and St Andrew, but expanded the reach to include all 14 parishes. Jamaica is made up of 14 parishes (not to be mistaken for territorial entity in

many Christian denominations); these were created in 1665 with the British invasion. They have no administrative authority, they are not landlocked, and they are like towns that comprise the bigger picture known as Jamaica (Prestwidge, 2009). Only parents or guardians of preschool, kindergarten, and primary-level schools with children ranging in age from 3 months to 12 years old qualified for inclusion in the study.

I was solely responsible for advertising and recruiting participants. A flyer was used to share basic information about the purpose of the study; it was distributed in local schools and other publicly accessible venues across the 14 parishes. The flyer provided prospective participants with an email address and telephone number for contacting me if they wanted to participate. Flyers were placed in other venues accessible to the public, including churches, fast food establishments, public buses, public parks, and the ministry of education and health. Advertising was also done in the offices of healthcare practitioners who were aware of study, that is, flyers were placed in the offices of pediatricians and dietitians who managed childhood obesity. I also placed flyers in the two main newspapers in the country, The Gleaner Company and The Jamaica Observer. These two companies serve the entire island of Jamaica daily; their publications can also be accessed online. Consent forms to participate were emailed to those who expressed an interest and who met the inclusion criteria.

### **Instrumentation**

I was the sole data collector with the aid of an audio recording device or software application. These recording devices collected verbatim information shared during the one-on-one interviews. The verbatim information was later transcribed electronically via

Temi.com. The main questions for the data collection for this study were drawn from the constructs and themes noted in the literature, specifically looking at support for school-based health programs, the fluffy phenomenon, and childhood obesity. Some examples of the general questions asked during the interview sessions were as follows: How do you feel about children being considered overweight or obese? What role should schools play in the healthy lifestyle decisions you take and make for your children? Describe what the word fluffy means to you. How do you feel about other people, such as grandfathers and doctors, making suggestions about what you should do to influence the health choices for your children? The need for follow-up questions was explored; participants were asked to elaborate or explain more about the statements they provided. Attention was paid to ensure that key themes were noted and incorporated into the questions used during the data collection process. Data collection processes was audio recorded; that aided in accuracy when the data were being reviewed and transcribed.

### **Content Validity**

Content validity is just as important for qualitative research as it is for quantitative research; however, qualitative research focuses more on the social and cultural understanding of what is being sought while quantitative research is interested in measuring objective truth (Brod et al., 2009). It is necessary that the interview questions are not so specific as to lead participants but comprehensive enough to gain their honest views as this supports content validity. Achieving content validity is two-fold: first, face validity is achieved if the questions being asked are sufficient to gain credible data and, second, sampling validity requires a sufficient number of participants to achieve

saturation. For this study, the iterative process of interviewing aided with content validity, that is, suggested questions or areas for additional exploration from a previous session were explored in subsequent session, thus leading to the gathering of more information. According to Brod et al. (2009), engaging in both one-on-one interviews and focus group discussions can enhance content validity and data saturation. For this research, I used one-on-one interviews to obtain data saturation.

While researcher bias has the potential to negatively impact content validity, various strategies can be employed to mitigate any biases that may taint the data (Brod et al., 2009; Creswell, 2013; Patton, 2002). To minimize bias or credibility issues with this qualitative research, I engaged in respondent validation, that is, the process of asking respondents to review and reinforce or clarify their responses with the aim of capturing their truth. Informant feedback or respondent validation were used in both types of information gathering; this assisted in clarifying and/or validating the information shared by each participant. I was responsible for reflecting on past interactions with each participant and recorded any personal biases noted. Using a reflexive journal, any biases detected were explored and eliminated. Another way content validity was achieved was by asking participants to review my interpretation of the information they shared to verify that what they said was captured accurately. In the interview session or information gathering process, participants can be asked a variety of questions that could also aid in content validity, such as, do you think your responses were accurate and what other questions could have been asked to gain more knowledge of the phenomenon under review? (Brod et al., 2009).

## **Procedures for Recruitment, Participation, and Data Collection**

Participants were selected primarily from within the parishes of Kingston, St. Andrew and St. Catherine; however, participants responding to newspaper ads from other Jamaican parishes or from flyers placed in health practitioners' offices, participated if they meet the eligibility criteria. To effectively catch the attention of prospective participants, the phrase "Do you have a chubby child" was included on the flyers. Patton (2002) suggested that participant selection is determined by many factors unique to the researcher, for example, cost, timeline for completing the study, and location. Eligible participants were parents or legal guardians of school-age children who are overweight or obese; the CDC recommends a different BMI calculator for children and teens (CDC, 2019). This tool was used to determine the BMI status of children. To assist with the calculation and understanding of BMI, participants were be provided with the hyperlink address for the BMI calculator on the CDC website. The hyperlink leading to the approved CDC BMI tool will be included in the short message service (SMS) messages; additionally, prospective participants could also request that a copy be emailed to them after providing their email addresses. Parents were able to determine if their child or children is considered overweight or obese according to the CDC guidelines; parents of children who meet the guidelines were eligible to participate in the study. The hard copy and hyperlink to the CDC child and adolescent BMI tool shared via the newspaper or SMS links can be viewed in Appendix B.

I was the sole researcher and was responsible for all data collection. My desire was to complete the data collection process within two months after obtaining

Institutional Review Board (IRB) approval; additional time had to be allocated to the data collection process because the required number of participants needed to reach data saturation was not achieved within the initial time allotted. To protect participants' identities, each was assigned a unique identification code for purposes of recording, analyzing, transcribing, and reporting their responses (e.g., P1 = participant 1). During the initial contact phase, participants were asked basic questions to determine whether they meet the inclusion criteria (e.g., Are you the parent of a chubby child?). Each one-on-one interview was scheduled for 40 to 90 minutes, allowing for sufficient interaction between the interviewer and interviewee; there was enough time for additional clarification, if needed. Allowing for a good understanding and responding to each question aided in data saturation as well as face validity. After the one-on-one interviews, participants had an opportunity to review their responses and provide additional information or clarifications as they see fit. More time was given to either or both procedures, if needed.

Data collection commenced as soon as institutional review board IRB approval to conduct the research was given. Interviews were scheduled per participant availability. Purposive sampling was done for this study; snowballing procedures was also be used (recommendation of other participants based on criteria similarities). Interaction with the participants was done based on their convenience. Data saturation was not achieved in the two-week timeline previously allotted, additional time was allowed for data collection. Participant interviews were recorded; this was done by activating the recording option associated with the virtual app used. I also had a handheld recording device to use as

backup for audio recording, this was to accommodate for unavoidable issues related to the virtual platform. I also took notes of nonverbal, colloquial comments, and other things said during the data collection process. All data recording devices and any hardcopies was kept in a password-protected safe in my private home office and will be destroyed after five years.

For the data collection process, I will create free cloud-based accounts and telephone voice and video chat option services. Zoom and Microsoft Teams cloud-based accounts was created for the sole purpose of collecting data for this research. These applications can be downloaded free of cost for android or apple devices from respective app stores. I obtained a new mobile telephone number from a local telephone service provider; the telephone number was for the sole purpose of data collection for this research, allowing for communication between participants and me.

Zoom is a cloud-based platform that allows for teleconferencing, telecommuting, distance education, and social relations between and among individuals (Zoom, 2020). A download of the basic option provides the account holder with free platform service for up to 40 minutes at any single interaction. After the account is created, I sent the participant a message with a shared hyperlink; they were able to connect to the meeting by clicking on the shared link. With the free link I was able to communicate with each participant for 40 uninterrupted minutes; however, if additional time is needed, both the participant and I can re-enter the platform with the same link for additional sessions, as needed. I conducted a test run of the zoom platform, after 40 minutes the session close, however I was able to reconnect and continue my test trial.

Microsoft Teams (Teams) is a cloud-based application free of cost to anyone owning or operating the Microsoft 365 program; it also allows for workplace chat, video meetings, and file storage and sharing (Microsoft, 2020). On this platform soft copies of information can be shared allowing the participants to check and validate my representation of the information they shared during the interview process. Like Zoom, participants will be required to download the Teams app on their preferred electronic device, allowing for video chat and file sharing between them and me. I assisted any participant requiring additional support or technical assistance to download and or navigate through any of these through a telephone call. This was to ensure that participants are comfortable maneuvering the communication method.

Finally, maintaining communication etiquette between researcher and participant is just as important for virtual communication as it is for actual in-person interactions (James et al., 2012). They advocate for the employment of netiquette techniques, social guidelines that govern online communications. Participants should be treated respectfully, their safety must be guaranteed, and their rights should not be violated. Just as informed consent is needed for in-person contact, informed consent must be obtained before virtual data collection commences.

### **Data Analysis Plan**

At the end of the data collection process, I commenced an initial review and analysis of each participant's response. To transcribe the data, Temi.com was utilized. Temi is speech recognition software that transcribe speech to text in a short timeframe (Temi, 2020). The charge to use this application is \$0.25 per audio minute. I also noted

non-verbal signs and gestures made during that particular interview. A copy of the transcribed data was shared with each participant for them to validate that my transcription reflects the message and experience they intended to share. Once participants confirm the accuracy of my transcriptions, I reviewed each transcript one more time, taking notes of key themes and phrases, especially those that make mention of the phenomenon and constructs under review. Reviewing the transcript and audio is a good way of detecting key themes mentioned by each participant; this step can be done more than once as it allows for clarity of the data (Alase, 2017). Reviewing the data repeatedly also help me to narrow and refine the frequency of key themes and phrases.

Alase (2017) suggested that identification of codes and themes in IPA research entails three main stages or steps: (a) transcribing participants' lengthy phrases and comments, (b) minimizing those to fewer words that capture the "gist" or essence of participants' experience, and (c) distilling the core essence in as few words as possible (one or two words) without losing or distorting the meaning of what was shared. Alase (2017) also recommends that IPA researchers use bracketing to distinguish between what the researcher thinks and feels and what the participant shared about the phenomenon under review. To control for researcher bias during the data analysis process, I kept a reflexive journal to record my own feelings, views, and understanding the phenomenon under review.

The NVivo software was used to organize the transcribed data into codes, categories, and themes; color coding will be employed to assist with the data analysis. Color coding and categorization are well-established methods in qualitative studies

(Alase, 2017). The coding was guided by concepts from the TPB, information in the literature on the fluffy phenomenon, parents' perception of and views towards school-based programs for childhood obesity, and other emerging themes that may be relevant to the phenomenon and other constructs under review. I reviewed the codes and themes identified by the qualitative data analysis (QDA) software, NVivo. During the coding phase, my computer was placed on autosave, a Microsoft 365 program that saves your file automatically every few seconds as you work; it works for files such as Microsoft word and Microsoft excel. Additionally, the data was backed up frequently with the aid of a flash drive and data bank; these actions protected my work from being lost if there was a power outage or software/ hardware malfunction.

I used a qualitative data analysis (QDA) computer software to assist with the organizing and sorting of the data; NVivo was the QDA of choice for this research and aided in the graphic representation of the analyzed data. According to Padgett (2012), QDA software offers qualitative researchers with a tool used in managing and retrieving raw data from multiple modes, e.g., interview transcripts, photographs, video, and audio recordings. NVivo is a computer-based program designed to analyze non-numeric, qualitative data which can be written/typed, or multimedia based (i.e., audio recordings). I also utilized Onedrive, Microsoft Word, and Excel to aid in organizing, sorting, storing, and presentation of the data for analysis. These applications can analyze information from several sources including audio, word documents, spreadsheets, and pdf files. Key findings will be recorded, sorted, and grouped for analysis and interpretation.

Evernote is a computer-based application that helps with notetaking, organizing, task management, and archiving of data from sources such as articles, magazines or newspaper clippings, and various forms of graphics. Evernote allows for the easy organizing of data for literature review and for the identification of repeat themes within a transcript. The diversity of this application also allows for the creating of notes not only into words but also into images and other art forms such as word clouds and drawings. These methods allow for the data to be analyzed and presented creatively to better convey the findings to readers and interested others.

OneDrive is Microsoft's storage service for hosting files in the cloud. It is available for free to all owners of a Microsoft account. OneDrive offers a simple way to store, sync, and share your files (Microsoft, 2020).

### **Issues of Trustworthiness**

#### **Credibility**

Credibility is established when the researcher's reproduction of the data truly reflects what was shared by each participant; this can be validated by member checking (Tomas, 2006). I engaged in member checking by asking each participant to review and confirm that the information presented in the transcribed document reflects what they intended to share about the phenomenon. They were also asked if the questions were easily understood and to share any difficulties they experienced during the data collection process, with specific reference to the questions being asked and their interaction with the researcher. The results were shown to each participant for them to see how the data were

presented after analysis. This also allowed for the participant to re-validate that the results represent their viewpoints.

Triangulation and researcher acknowledgement (reflexivity) of their biases are other ways of establishing credibility of the research data. To achieve triangulation, I recruited multiple participants from various sources; this should provide diversity in participant responses. Participants were selected from responders to the flyers and newspaper ads and, also, from participant recommendations (i.e., snowballing).

Reflexivity is one way of identifying and eliminating researcher bias and is necessary to ensure credibility (i.e., internal validity); this can be done when the researcher brackets their own feelings to distinguish between that of the participants and their own.

Researcher bias may cause readers to question the credibility of the information shared by the participants. To that end, I recorded my thoughts throughout the data collection and analysis process in a reflexive journal, which were reported with the results in the Chapter 4.

### **Transferability**

Transferability speaks to the generalizability of the researcher's finding, while this is not the primary focus of qualitative studies it is important to be able to see similarities of one's finding in other areas of our society (Toma, 2006). It behooves the researcher to represent the information received from each participant in such a way that it doesn't change or alter their intended meaning, but they should ensure that the interpretation of the data provides a thick description of the participants' viewpoint (Toma, 2006). According to Toma, with sufficient detailed information, a variety of

people (including policymakers, parents, and researchers) should be able to replicate my study with different populations in other settings. As the researcher I used member checking to validate my thick representation of the data and will seek feedback from other key opinion leaders on the phenomenon of interest as to their understanding and applicability of the data to other groups.

Another vital step to achieving transferability is ensuring the data analysis is flawless when replicated; according to Toma (2006), this can be demonstrated using an audit trail. Having participants validate the transcripts can ensure that themes identified are aligned with what they shared. I reviewed the transcribed data more than once, to ensure that themes and codes remain consistent. I also maintained a reflexive journal, recording my own view at various stages of the data analysis process. Presentation of the data in my reflective journal will show my biases and help to separate my views from those of the participants.

### **Dependability**

Establishing dependability ensures the reliability of the study. According to Shenton (2004), establishing credibility lends support to dependability, hence another benefit of engaging in triangulation for the study. Using the strategy of triangulation as described for achieving credibility will likewise ensure dependability of my findings. Maintaining an audit trail is recommended to achieve dependability in scientific research; this is the maintenance of a detailed record of all the steps involved in the research process, e.g., the actions taken, the changes made, and maintenance of records throughout the research process (Shenton, 2004; Toma, 2006).

**Confirmability**

Being able to establish confirmability is to demonstrate the objectivity of the research, demonstrating that the research is bias free. I have personal views about the phenomenon under review, and I am aware that these views could bias my interpretation of the data. At the outset, I declared my own views on the various constructs to minimize unintentional bias in my reporting on the data. As mentioned before, I maintained a reflexive journal to share my own views and potential biases throughout the research process. Throughout the interviews I remained cognizant of your own emotions while interviewing, any experiences of surprise or other emotions were reflected upon after the interview. The audit trail will also support confirmability of the data. The audit trail can be reviewed by anyone during and after the completion of the research. This will provide a detailed record of all steps taken from beginning to end of the study.

**Ethical Procedures**

Prior to placement of any advertising piece related to the study, IRB permission was sought and obtained. Advertising for participation in this study was done in local newspapers and government schools and buildings. All documents used were included as part of the IRB application. The importance of informed consent will be reviewed with all participants, emphasizing their rights, e.g., to decline to participate and/or terminate participation at any time without penalty. The information collected during the interviews will be kept for 5 years after analysis and then destroyed. It will be protected behind a password in an electronic file on my personal computer, which is also password protected. A copy of the consent form details rights of the participant, how the

confidentiality of the participants will be maintained, any potential discomfort that could be experienced by the participants and how that discomfort can be handled if discomfort or stress related to the interview process is experienced by the participants. If at any time during the data collection process, participants express any signs of distress, they were given the opportunity to pause or discontinue participating in the study. No participant chose to discontinue the interview process, and no one required additional intervention. If additional intervention was needed, my intention was to refer them to the guidance counselling division of the school their child attends; both telephone and email information would have been provided. Participants were informed of the purpose of taking notes and audio recording during the data collection process as well as the rationale and importance of all procedures used. The utmost effort was taken to ensure that participant confidentiality was protected.

### **Summary**

This phenomenological study explored parents' feelings towards school-based programs aimed at curtailing childhood obesity in an environment where being obese or overweight is favored by some in Jamaican society. The tenets of Ajzen's (1980) TPB guided the information gathering process. The TPB was used to guide the identification of emerging themes. Strategies for establishing trustworthiness were described and steps taken to protect participants' rights were provided. Details of the methodology, recruitment, data analysis, and issues of trustworthiness have been presented. Chapter 4 will present the results.

## Chapter 4: Results

### **Introduction**

The purpose of the study was to gain a better understanding of parental support for school-based health initiatives to reduce childhood obesity. A qualitative research approach was employed to understand parents' support for health programs designed for school-age children in Jamaica. Parents of overweight and/or obese children were interviewed about their thoughts on school-based health initiatives and about their role in curtailing childhood obesity. In this chapter, I discuss the study setting and participant demographics, data collection and analysis procedures, issues of trustworthiness, and the results.

### **Setting**

The study was conducted in an era where the use of the worldwide web is a dominant platform for human interaction and communication. I was mandated by my school research program to conduct virtual interviews due to the COVID-19 world pandemic. The interviews were conducted in my private home office; this allowed for privacy and no interruptions. I encouraged participants to select a location that offered privacy and minimal-to-no interruption during the interview process.

### **Demographics**

The population of interest for the study were parents and guardians of overweight or obese school-aged children. Their children were students with ages ranging from 8 to 18 years old. Mothers, fathers, and/or a guardian willingly participated in the interviews. The participants' identities were coded to assure confidentiality and consisted of a

sequential numeric identifier (e.g., P1). Abbreviated demographic information for each participant can be seen in Table 1.

**Table 1***Demographic Data*

Numeric identifier	Ethnicity	Gender	Economic status	Age	Education
P1	Afro Caribbean	Female mother	Middle-class \$2000 monthly	30+ years	University degree
P2	Afro Caribbean	Female mother	Middle-class \$2000 monthly	30+ years	Technical education
P3	Afro Caribbean	Male father	Upper-class \$3333 monthly	30+ years	Post basic degree
P4	Afro Caribbean	Female mother	Middle-class \$2000 monthly	40+ years	Post basic degree
P5	Caribbean	Female mother	Middle-class \$2000 monthly	40+ years	Post basic degree
P6	African	Male father	Middle-class \$2000 monthly	40+ years	First degree
P7	Afro Caribbean	Female mother	Lower-class \$700 monthly	No data	No data
P8	Afro Caribbean	Female guardian	Lower-class \$700 monthly	40+ years	High school
P9	Caribbean	Female mother	Middle-class \$700 monthly	40+ years	Post basic
P10	Afro Caribbean	Female mother	Middle-class \$2000 monthly	40+ years	Post basic degree

P1 was an Afro-Caribbean middle-class mother 30+ years old with a university degree. Her gross income is over \$2,000 USD monthly. She has a female child in primary school who is classified as overweight.

P2 was an Afro-Caribbean middle-class mother 30+ years old with specialized technical education. Her gross income is between \$2,000 USD monthly. She has a female child in secondary school who is classified as obese.

P3 was an Afro-Caribbean upper middle-class father 40+ years. He has a post-basic degree, and his gross income is over \$3,333 USD monthly. He has two female children who are classified as overweight and obese. The children are in primary and secondary schools.

P4 was an Afro-Caribbean middle-class mother 40+ years with a post-basic degree. Her gross income is over \$2,000 USD monthly, and she has two female children who are classified as overweight. The children are in high school.

P5 was a Caribbean middle-class mother 40+ years with a post-basic degree. Her gross income is over \$2,000 USD monthly. She has a female child classified as obese in primary school

P6 was a middle-class African father 40+ years with a first degree and specialized education. His gross income is over \$2,000 USD monthly. He has two female children who are classified as overweight. The children are in high school and university.

P7 was a lower-class Afro-Carib \$700 USD monthly. She has a male child in primary school classified as obese.

P8 was a lower-class Afro-Caribbean female guardian 40+ years with high school education. Her gross income is below \$700 USD monthly. She is guardian to a male child in primary school classified as obese.

P9 was a middle-class Caribbean stay-at-home mother in the over 40 age group with post-basic and specialized education. Her monthly income is over \$700 USD. She has a female child in primary school who is classified as overweight.

P10 was an Afro-Caribbean middle-class mother 40+ years with post-basic education. Her gross income is over \$2,000 USD monthly. She has a primary-age female child classified as overweight.

### **Data Collection**

Ten participants were recruited for the study using posters\flyers shared via a pediatric medical health facility, local print media, and on the social media sites of friends and associates. Sampling was done using convenience\purposive method based on eligible participants responding to research flyer shared in the public domain. Snowball sampling was also used; each person interviewed was invited to share the flyer describing the research to someone they thought would be appropriate for the study. The potential participant was to contact me directly if they were interested in participating. The information from the participants was collected using an interview guide (see Appendix), consisting primarily of open-ended items. This was done via audio recording on the Zoom platform and telephone recordings. Each participant was also asked to provide responses to standard demographic questions. No preselected locations were assigned for the interviews as they were conducted at the convenience of each participant and in the

comfort of a location selected by them. Interviews were conducted virtually to control the spread of the COVID-19 pandemic. As the interviewer, I was in a private room, and participants were encouraged to select a private convenient location to ensure privacy of the information shared and to minimize interruptions. Each interview lasted 20 to 30 minutes.

### **Changes to the Initial Recruitment Strategy**

Changes to the initial recruitment strategy were necessary and were approved prior to implementation by the university's IRB in one specific situation. In-person interviews were initially proposed, but due to the COVID-19 pandemic mentioned above requiring social distancing, work from home, and remote schooling restrictions imposed across the country, as well as Walden's virtual data collection requirement, the data collection changed to online and telephone interviews. After an initial review by the Walden IRB, a suggestion was made to open the participant pool to any parent, but this strategy was not implemented. After discussion with my dissertation chair, we decided to recruit only parents and/or guardians of overweight or obese children as I was particularly interested in the perspective of these parents\guardians rather than all parents.

### **Unusual Circumstances Encountered**

The initial recruitment process was challenging for a few unforeseen reasons. Firstly, there was a low response rate to advertising. Secondly, some participants complained about the quality of their internet speed and reliability of their connection. Third, some participants were uncomfortable sharing the flyer because some parents were sensitive about their children's weight and may take offense to the suggestion that their

child maybe overweight or obese; although that objection was raised by some participants, I was able to recruit through snowballing. After transcribing the interviews, I needed to validate the information with each participant to ensure that the transcription did not change or alter their point of view. Making a second contact with some participants was challenging, and I had to extend the member checking stage of my data analysis.

### **Data Analysis**

I uploaded the recorded interviews to my personal Temi account. The Temi software converted the audio recordings to a readable format. While simultaneously listening to the audio recording on the Temi software, I edited the readable format, checking for grammatical errors, misspellings, and erroneous translations. I listened to the audio recording as many times as needed to ensure accuracy of the transcription. The edited transcribed audio interviews were uploaded to a Word file and saved to an encrypted folder on my personal home computer. The file was labeled research transcriptions. I then uploaded each of the 10 transcription documents to the student version of NVivo; this allowed for open coding, list coding, or coding in vivo while moving through the transcriptions. According to Toma (2006), qualitative research is interpretive; it is about gaining meaning and building concepts from the personal and rich information shared by participants, which is done by coding extensive information into smaller analyzable units. I began the initial coding of the interviews into smaller analyzable units through the creation of categories and concepts derived from the data. Coding was done using the theory and literature that guided this research process. While

reading through each transcript, I extracted words or short phrases that represented a key response to the interview questions, shown in the code section of Table 2. These key words and phrase were concurrently aligned to the codes. The codes and categories were done according to the main tenets of the TPB.

In the second phase of the coding cycle, I defined the codes and grouped them according to similarity, shown in the code and definition sections of Table 2. The conceptual and theoretical frameworks and culture-related knowledge that informed this study were used to generate and guide the formation of group codes seen in Table 2. The constructs that comprise the TPB, including intention, attitude, subjective norm, and perceived behavioral control, were used to explore parents' support for preventing or eliminating childhood obesity. In the second phase of the coding process, I used NVivo to support results representations. This phase involved the use of code\quotation diagrams to create and share visual representations of the data from different viewpoints. The use of the concept map allowed me to better understand the quotations associated with codes and code groups. Taken together, the outputs of the information (including emergent patterns and themes) generated by the NVivo software allowed for a more authentic understanding of participants' lived experience, especially their perceptions and feelings of parental support for school-based health programs to address childhood obesity.

In the final phase of the coding process, headings that represented various interview questions under the framework of the two main questions were created. Participants' verbatim quotes were used to illustrate the essence of their responses to the interview questions. I then placed the research questions and quotations under the

relevant headings; this process aided in the creation of meanings and outcomes under these headings.

### **Codes Groups, Codes, Definitions**

Table 2 displays code groups, codes, and definitions.

**Table 2***Code Report: All (12) Codes*

Code group	Code	Definition
BEHAVIORAL BELIEFS: includes the thoughts and feelings held about the behavior; they can be positive or negative, i.e., what parents\guardian had to say about their attitude and feelings toward school-based health programs aimed at preventing or controlling childhood obesity	● Parent's role and feelings	How participants feel about parent's role in controlling or preventing childhood obesity
	● Positive attitude	Parents express their support for actions that lead to behavior change and support for school-based programs aimed at controlling or preventing childhood obesity.
	● Negative attitude	This is where parents express or share that they do not support actions that lead to behavior change and support for school-based programs aimed at controlling or preventing childhood obesity.
SUBJECTIVE NORM: includes the thoughts and feelings related to perceived social pressure to comply with behaviors widely viewed as appropriate and acceptable toward preventing and controlling childhood obesity.	● Intention	Participant's willingness to implement action against childhood obesity
	● Government health policies	These are the policies suggested by government bodies and public stakeholders with an interest in healthier options for schools and parents to employ, aimed at preventing or controlling childhood obesity
	● School health policies	These are the policies suggested by schools for parents to employ, aimed at preventing or

Code group	Code	Definition
		controlling childhood obesity
	<ul style="list-style-type: none"> <li>• Health suggestions from others</li> </ul>	Health suggestions from other influencers, such as social media gurus etcetera.
	<ul style="list-style-type: none"> <li>• Home rules and guidelines</li> </ul>	These are the home-based rules and guidelines suggested by parents to employ, aimed at preventing or controlling childhood obesity
<b>NORMATIVE BELIEFS:</b> includes individuals' perception of how referent people feel about the desired behavior and if the desired behavior should be performed. The behavior being: taking actions to control or prevent childhood obesity.	<ul style="list-style-type: none"> <li>• Health or nutrition related suggestions from family members</li> </ul>	These are the suggestion or actions taken toward children by family members to the health or lifestyle choices for children in their families, for example suggestions about what they should or should not eat and activities to perform or not to perform.
	<ul style="list-style-type: none"> <li>• Grandparent's role</li> </ul>	Suggestions and influence of grandparents in making suggesting and partaking in actions aimed at healthy lifestyle choices for children
	<ul style="list-style-type: none"> <li>• Home rules and guidelines</li> </ul>	These are the home-based rules and guidelines suggested by parents to employ, aimed at preventing or controlling childhood obesity
<b>CONTROL BELIEFS:</b> Perceived belief that one has control of factors that influence what is happening or will happen represents any comment about health.	<ul style="list-style-type: none"> <li>• Perceived control</li> </ul>	Perceived personal control over external factors needed to make healthy lifestyle choices

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	for children considered overweight or obese
● No control	Perceived factors that negatively impact control belief

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## Categories

The categorization process for this research started with the code groups identified. The four main tenets of the TPB, behavioral beliefs, subjective norm, normative belief, and control beliefs informed the code groups in this research. The codes were also identified and aligned with the tenets of the TPB, along with the definitions assigned to each code. A word table document was created with the code groups as headings. The codes were listed under the main headings for each table according to the relevance of each code (See table 2). The next step required me to identify categories while reviewing each participant's transcript. This process was done repeatedly ensuring that participant responses were appropriately identified and categorized to allow for the emergence of themes. Repeated words and phrases, statements that incited change in voice or mood, and words that seemed to relate to the code group or codes were highlighted. The highlighted information was copied to a word document, which was reviewed repeatedly, looking for similarities in the participants' words. This was a very important phase because it helped me to see similarities which led to the creation of the data categories. During the process of reviewing the highlighted information, several categories were created; these were later listed under six main themes. From the analysis of the participants' information, the emerging themes were parental responsibilities, the

business of schools, societal impact, the fluffy culture, family members' role, and control issues.

### **Evidence of Trustworthiness**

#### **Credibility**

Providing evidence of credibility is another important aspect of qualitative research, which strengthens the internal validity of the study; this can be done by engaging in respondent validation or member checking (Korstjens et al., 2018). Throughout the research process and after transcription of the data, I conducted respondent validation with each participant to validate that their views were accurately captured. At the end of each interview, I asked participants if they understood the questions and if there was anything else they would like to add about the topic that I did not ask during the interview process. This was done to aid in validating their responses and to explore if additional questions could be included in the interview for prospective participants. According to the respondents, the interview questions were clear and understandable; they also said that the topic was interesting and relevant. No additional suggested question was made, but each participant had additional comments as a closing remark. These were included in the data analysis. Quotations and themes to be included during data analysis was shared with respective participants for verification and validation. Information that was not correctly represented was corrected to reflect the participants' view. No major changes were required.

I also engaged in member checking to support the credibility of my study. Member checking is an important concept in qualitative research because it supports the

credibility of the information being shared (Bloor et al., 2006; Tomas 2006). After transcription of the interviews each respondent was asked to review the data recorded by me for them. This is to ensure that what was captured was what they intended to say and share. Member check on the other hand is the intentional sharing of transcribed data with a respondent for them to validate that the information represented by the researcher reflects only the respondent's perspective on the questions asked during the interview process (Tomas, 2006).

### **Transferability**

Although generalization is not the primary focus of qualitative research, one may want to replicate the study with a different population that exhibits similarities to the current study (Tomas, 2006). According to Toma, thick description provides the context needed (e.g., being a parent or guardian of an overweight or obese school-aged child, age, gender, socio-economic status, geography and other uniqueness of the population, variety of people (including policymakers, parents, and researchers) to replicate my study with different populations in other settings, supporting the concept of transferability. This study sought to gain information on how parents feel about school-based health programs aimed at controlling or preventing childhood obesity in Jamaica. Jamaica is a developing country with individuals from all socio-economic groups and varied educational backgrounds where childhood obesity is a major health problem (MOHW, 2020). Having a "little weight" is not considered a bad thing, an attitude that pervades Jamaican culture. In the Jamaican schools, students have access to various types of fast foods, numerous

unhealthy snacks, and low activity levels. Jamaican demographics and lifestyles may differ from other countries, limiting the transferability of these findings.

### **Dependability**

To protect the integrity of the respondent's information, due care was taken during each step of the research process. The research questions were clear and aligned with the study design. My role as a student researcher working on a doctoral study was clearly advertised and addressed with each of the participants in the study. I kept non-traceable records of my interactions with each participant. The files were stored and saved with the unique identifier number assigned in the interview process. The method by which each participant contacted me and how I subsequently contacted each participant was clearly detailed. All feedback and comments were clearly assigned to respective participants. Additionally, all data collection and analysis procedures were documented and accessible only by me.

### **Confirmability**

Reflexivity is used in qualitative research to establish objectivity where the researcher must be aware of one's own preconceptions and biases to ensure that they do not influence data collection, analysis, and interpretation (Blor et al., 2006). As a parent of overweight school-aged children, I was always aware of my own biases as I communicated with participants about their perspective on parental support for school-based programs aimed at controlling or preventing childhood obesity. Childhood obesity is a topic of interest to me, because of this I had to ensure that my own biases were personally acknowledged. In my reflexive journal I made note of my own feelings and

views toward childhood obesity and school programs aimed at supporting the reduction of this problem. Throughout the interview processes I remained aware of my own views always making notes of issues that I considered my own bias. I deliberately set aside these biases not allowing them to interfere with my participant interactions. While asking participants for clarification I ensured that I was not leading their responses in any direction. I sought to understand and make note of the meaning and views provided by each. It was of key importance that each participant validated their interview transcriptions to confirm that my biases did not interfere with the interpretations.

## **Results**

### **Research Questions**

The following questions guided the exploration of this qualitative research:

RQ1: What are parents' beliefs about their role in curtailing childhood obesity?

RQ2: What are parents' thoughts about school-based health initiatives?

The themes for this research evolved around, parental responsibilities, the business of schools, societal impact, the fluffy culture, role of family members, impact of grandparents, and control issues. All participants provided information on their lived experiences aligned to these themes.

### **Theme 1: Parental Responsibilities**

All participants expressed that the primary responsibility for addressing childhood obesity lies with the parents or primary caregiver. The participants also expressed both positive and negative emotions about their ability to carry out this responsibility. Words and phrases such as “parents have a role but it’s not them alone,” a feeling of failure,

indifferent, and 100% parents' responsibility were noted from various participants. Some participants spoke about parents leading by examples and taking actions that will lead to better health outcomes. P6 shared,

I think of us as parents, we tend to focus on ourselves when it comes on to eating healthy, because you'll have a parent who will not eat ice cream or chocolates, you know, and even if they don't eat, they eat it once in a while. But you know, this said, they're watching their weight and they're doing that, but yet still, they don't take that same approach towards their children. So, they allow them to eat any hour of the night, to eat anything, sweet things and so on. Sweets right around the clock. You know, every Sunday is a traditional, they eat ice cream, they eat cake. So, for me, I believe that what is a healthy approach that you take for yourself you should let it be comprehensive include the children. Have treats for special days or situations but try to curtail it as best as possible.

Another participant, P1, reported the following:

Parent should ensure that the child have a balanced diet, try to avoid introducing the children to sugar and lots of sweet stuff from an early age. You know, if you realize that your child is less active, you know, then you cut back on the amount of sugar that you give the child or fatty food, the fatty based food, especially if you have a child who is not very active, you know, so first as a parent, you have to know your child and, you know, monitor the weight gain of your child as long as the child is healthy.

The comments by P1 and P6 were similar to what other participants shared but may have been said differently; however, it reinforces the responsibilities of parent in taking actions against childhood obesity.

### **Theme 2: The Business of Schools**

This theme captures participants' attitudes, views, and emotions held in relation to school and school factors that can influence childhood obesity, in particular the action taken by schools to support parents' fight against childhood obesity. There were participants who felt that schools were positively supporting the fight against childhood obesity, but at the same time some felt that schools could do more to counter some of the negative things participants cited were taking place in local schools. According to P2,

If what I said about putting a ban on certain foods in schools is not in effect, the government needs to put that in effect. Some parents may be doing their best at home to stop their child from being overweight but when the children go to school that changes because of the foods the schools have available for the children to buy and also the foods they provide for the children' lunch may not be the healthiest. More needs to be done at the level of the school. The schools should complement the actions of the parents.

One participant voiced that schools could make suggestions for healthy actions or initiatives, but the decision was hers to make. She also suggested that school is a place where healthier options should be available. P5 expressed,

Schools don't have anything to do with my decisions, apart from perhaps offering healthier meals at the schools. Um, perhaps banning the sugary drinks, because

you know, children can buy these stuffs at school. Although you may ban it at home, they can buy them at school. But if they are not there, they won't be able to buy them.

Albeit a negative response, it appears that the participant is also inferring that the role of schools in curtailing childhood obesity is a vital one, note the comments made (. . . offering healthier meals at the schools. . . perhaps banning the sugary drinks. . .).

Other participants expressed more positive feelings toward the role of schools in addressing the focus of this research. For example, P10 explained,

I think school-based health initiatives are very good, they are a step in the right direction because children will take home whatever message they learn at school, they will take it home to their parents and their guardians. So, I think schools should be a place that will foster these initiatives. I think that's a very good idea. School should be one of the places because students spend so much time at school, so if they can correct those measures at school, like having the correct initiatives at school, that is a step in the right direction.

P2 shared, “The parents are the first step. Um, when they go to school, then it is maintained. Hopefully our choices should be maintained at school, but the core part of it, the first step should begin at home.” P7 said, “Half of the time the school talking the right things that we are to do. I believe they say some good things about what we as parents are to do.”

Education information from schools and other forms of support from schools were two recurrent categories noted in the highlighted information from several

participants under the theme, the business of schools. However, one participant indicated that her educational level was adequate for them to make and take decisions related to the health choices for a child. P5 stated,

They can make suggestions, but that's just suggestions for me. I do what is right for my children. It doesn't depend on what the healthcare provider, or their grandmother say. It doesn't matter what they say. . . I went to school too.

However, most of the other participants supported the involvement of schools and also cited the need for educational support that would equip them to take and make healthier choices that could aid in the fight against childhood obesity. P2 explained,

I like them especially the one that came out recently about not having sweet drinks in schools. Schools need to share information about the level of sugar in these juices. And schools should be told what they can carry to sell to the children. Persons in charge should see that schools provide healthy options to young children.

P3 elaborated,

Um, I think they should be standard across in the curriculum. I think that's where most child spend most of the time. Children are more influenced by their teachers more than their parents, just a reality. Besides how often do you a child says, teacher said this, so that's how it should go! Right. So, schools have a responsibility to us. So, I think schools and teachers should use their power, not just their power, but their influence on these young minds, Persons in the school environment have immense power that is untapped.

P8 also commented,

I think the school plays an important role in supporting parents, because at the end of the day, um, you know, you want your child to be all rounded especially with physical education. And I think physical education should be tied in also with having a nutritious diet and having a healthy diet. Schools can support in these areas.

The support or positive views toward school and education was also shared another participant who identified the positive impact that could be created by teachers. P7 expressed the following:

Teacher, I think, they play a positive role in the child's life, where when they carry certain snacks to school, the teacher can educate them and say to the parent or to the child to not bring that back to school, or you don't eat much of that but try to eat less of the less health stuff.

### **Theme 3: Societal Impact**

According to the TPB social institutions such as schools, health services, and government bodies can influence the decision to engage in behavioral change (Ajzen, 2002). If the thoughts, attitudes, and emotions participants hold toward the views on the control or prevention of childhood obesity from these social institutions are positive, it is more likely they will engage in actions that can positively impact childhood obesity. Participants in the study all agreed that while parents are primarily responsible for issues related to their children being overweight or obese, it is not all left up to them. Most participants voiced that other factors in the society have a role to play in supporting

actions against childhood obesity. There was noted support for some of the suggestions from social institutions within the Jamaican environment. P2 explained,

Well, um, I appreciate the feedback once it comes, um, you know, once it comes off in a positive way, because you have some person that will say things, you know, to make it feel bad and make the child feel bad, but once it comes off in a positive way, then I can appreciate it.

P3 stated,

Sometimes some of them talk the right things that we are to do but sometimes as parents we don't listen, we just do what we want to do. We do our own thing sometimes. Sometimes they talk real reality what to do with the children.

P4 said,

I think it's very important that those persons, um, make suggestions that sometimes, as a parent you may not be aware of everything. And secondly, some of what they say can be helpful. So, I think they, uh, the community is responsible for helping you to charter the life of your children.

Although most participants expressed a positive attitude toward the views of social institutions suggestion on what parents should do to foster better health choices for their children one participant clearly stated that it was just that, a suggestion. P5 asserted, "They can make suggestions, but that's just suggestions for me. I do what is right for my children. It doesn't depend on what the healthcare provider, or their grandmother say. It doesn't matter what they say." Two participants cited control factors that could limit their support for suggestions from societal entities. However, one was more definitive about

positive feelings toward some social entities. P7 shared, “I find that information from those people can be useful but sometimes they don't know what is happening inside my home and the plans that I have. I take the feedback from them with a grain of salt.” P6 explained,

I think it's okay. But sometimes it depends on their economic situation, their financial background, because you are going to tell a parent who is working minimum wage, how to feed their child. Sometimes it doesn't connect cut (work) with them because the money that they make cannot afford to feed that child healthily.

Participants also identified that government as a social entity, is a vital contributor to the successful fight against childhood obesity. Most participants indicated that they were willing to support childhood health-based initiatives implemented or suggested by government bodies. Participant also said that they think that government should do more to support them as well as implement other actions aimed at putting a significant dent in the childhood obesity rates in the country. P9 articulated,

Right. And that, um, that takes money, and it takes the government. And you asked the government to start in the school. That is how we have to start. Make it happen in the schools, the same message being preached at home. And that's same message be preached on the TVs and social media. We can't forget that media influences the kids very much. Use social media bombard the kids with healthier choice option and information on social media. Everybody saying the same thing. The government can control that.

The indication or need for governmental involvement was shared by P4:

Okay. Um... I believe government has responsibility of setting policies and implementing programs for the population to reduce the incidents of childhood obesity. So, it is not only at the level of the school or the household, but at the parliament and government level. And the government ministries, namely the ministry of education and the ministry of health.

#### **Theme 4: The Fluffy Culture**

While Jamaicans use the term fluffy in a pleasing way to describe overweight persons, all participants were familiar with the construct fluffy but had varying views about its application to children. Most participants said the term should be used to describe adults and not children. P2 reported, "I don't think it should be applied to children because it can be used in a sexual way. It is more used to describe sexy females." P2 expressed,

Fluffy in Jamaican terms means that you are fat. It speaks to a person with positive views on their body, "they are thick," but you don't really want to use the word fat because fluffy is used in a nice way.

P4 explained,

I think the, the term fluffy gives, uh, um, a false sense of security where instead of you saying the child is obese because you don't want to traumatize them, you use the word fluffy, so it could work against child seeking to change their diet and lifestyle

P5 asserted,

I don't think the term fluffy should be used with the child. I think fluffy should only be used to describe an adult who is overweight but is comfortable with being overweight and considers themselves to be looking good. So, they have come to accept overweight as, um, ordinary life the norm for them. It is not a term for children. One participant voiced that some persons in the population feel that being overweight is a sign of health and wealth while being slim is the reverse, the participant sees that view as counter to what being healthy really means.

P10 revealed,

Well, as someone who has growing up in Jamaica, culturally, we believe that children and adults alike should not be skinny. And so being on the overweight side is synonymous with healthy. Um, but the, the science goes against that 'meat on the bones' theory, cultural it means that you're healthy, but it can be opposite. She further stated, yes, I think that term is used mostly in rural areas where they think that if the child is overweight or obese, they are healthy. However, I don't see that as being healthy. I look at other milestones, such as, if the child is behaving appropriately for their age, if the child is just healthy and the weight is appropriate for age, and there is not, as they say, "meat on the bone," once the child is doing what they're supposed to be doing at the appropriate age that is what I term as healthy. Not if the child is fat.

### **Theme 5: Family Members' Role**

All participants made mention of how family members could impact their decisions to influence healthy lifestyle choices for their children. A few also made

specific references to the impact of grandparents. According to the normative beliefs construct of the TPB, individuals can be influenced to perform or engage in a behavior based on how referent others view the behavior (Ajzen, 2002); referent others were noted to be close family members. P4 explained,

Well, on one hand, uh, I feel like it's a failing on my part as a parent. And on the other hand, I think it is because of the options that are available for, um, for them to consume that affects the overall results. They can be influenced by friends and family.

P6 stated, "Grandmothers for example tend to give more of the things I don't want the children to have, so I must watch out for actions like that." P2: expressed,

Yes. It is going to be a community effort. Schools, when they go to visit families. When they out with other family members they may give them less healthy things so that needs to change, everyone needs to be on the same page.

P9 said, "Relatives, they can be very negative in the children's life when they give like the foods that are not appropriate for, for that for the child." P5 believed,

I think that's everybody has a role to play. I think if, if there's a grandparent in the child's life, I think that grandparents can influence the child either for good or for bad meaning they would give them stuff, give them food, food from different groups that they should not get at that time. They will indulge them. I think that these people play a very important role in, but sometimes they don't give their right suggestions for what the children should eat. But the grandparents or other

relatives, they can be very negative in the children's life when they give foods that are not appropriate for the child.

### **Theme 6: Control Over Actions**

This theme reflected the participants' perceived control over eliminating childhood obesity and also their views on school-based health initiatives. The participants expressed the ability to maintain control over external factors that could impact their intentions to take or maintain actions aimed at curtailing childhood obesity but were not concerned about the influence of certain situations and persons that could diminish that control. As it relates to controlling external factors, P8 said, "I am not comfortable with my child's weight, and I am trying my best to work on it controlling or reducing the obesity. The Covid 19 pandemic lockdown is not making the control of it any easier." P5 claimed, "There were relatives telling me otherwise, so for me it doesn't matter. They can make suggestions, but that's just suggestions for me, I do what is right for my children." P7 asserted, "I take the feedback from them with a grain of salt." P1 elaborated, "Definitely! parents shouldn't give children everything they ask for especially when they know they children can get hooked to them." P9 was clear about his ability to stay in control of his child's weight: "I don't feel bad about it. Children who are overweight or obese can turn it around and I can control that. I don't consider it a real issue at an early stage in the life of young children."

Other participants expressed in their own ways how they maintain control. P5 expressed, "Schools don't have anything to do with my decisions, apart from perhaps offering healthier meals at the schools." It did not appear that parents were suggesting

loss of control when they identified the role referent others may play in possibly undermining their plans and intentions for better weight control or health lifestyle choices for their children but may be suggesting that some referent persons could have negative influences on the plans that they have for maintaining this control.

### **How the Results Respond to the Research Questions**

RQ1: What are parents' beliefs about their role in curtailing childhood obesity?

The themes parental responsibilities, the business of schools, the fluffy culture, family members' role, and control issues all respond to the first research question. All participants stated that parents have primary responsibility for fostering a healthy lifestyle for their children. P4 said, "Most definitely, without a doubt." According to P7, "I strongly believe that." Although some participants voiced that other factors or persons can influence health decisions for their children, it remains the primary task of parents to prevent or control childhood obesity. At the onset of some interviews, a few participants expressed concerns that, knowing something needs to be done, they will take actions to ensure their children health. P8 posited, "I am not comfortable with it, and I am trying my best to work on it controlling or reducing the obesity." One parent expressed self-disappointment, because she felt that her child was overweight but did not have full control over the situation. Another parent was not perturbed, because he believed there will be opportunities for this situation to change. However, all participants indicated that the primary responsibility for managing childhood obesity was that of parents.

Most participants shared that they believed in and looked to schools for supporting and providing their children, and themselves as parents, with healthy lifestyle

options. The participants felt that they had a responsibility to implement positive health initiatives shared by schools. For the most part, participants felt that school-based programs and schools play an important role in leading the charge against childhood obesity. Schools were seen as institutions capable of supporting and educating not only children, but also parents on actions that could be taken to foster healthier lifestyles. Although most parents agreed about the role of schools, one parent felt that school had no place advising her on what to do for her child -- that was her decision alone.

Additionally, there were parents who felt that schools contributed to children being overweight or obese because of the food choices available in the school canteens. Parents said schools should be the place where healthier choices are taught and made available. One parent suggested that schools should have *mandatory* staged learning programs for children from kindergarten right through to high school. The feedback from the participants is suggestive of a collaborative approach between school, students, and parents. P3 said, "Schools have a responsibility to us." P4 furthered, "I think it's very important that schools make suggestions, as a parent you may not be aware of everything. And secondly, some of what they say can be helpful."

Participants also felt that they had a responsibility to seek out persons and institutions engaged in practices counterproductive to parents' health desires for their children and then implement actions to curtail those undesirable practices. Some participants cited that intervention from government agencies could help them to counter some of the undesirable actions (e.g., some schools still making sodas and energy dense snacks available) that run contrary to what parents have implemented in their homes or

what they have instilled in their children. One participant suggested a community approach to curtailing childhood obesity. P4 asserted, “I think they, uh, the community is responsible for helping you to charter the life of your children.” It is actions like the government agencies involvement and the community approach that could result in positive societal impact.

The concept of fluffy appears to justify obesity in Jamaica. Most parents felt that the term fluffy was a way to make overweight or obese seem appealing and acceptable. A few parents said that the term fluffy has become integral to the socialization and culture of Jamaicans. One parent claimed that the term fluffy was made popular by an influential social media person in Jamaica. It was widely agreed that the term was not applicable to children with some parents insisting it applied only to adults. At least two parents suggested that the term fluffy referred to physically appealing fat women who are considered *sexy*. One parent suggested that fluffy may have been used with children but that children took offense. Some said being fat was considered a sign of good health while others inferred that childhood obesity is a sign of malnutrition. One father mentioned that although the term ‘meat on the bone’ may be used to suggest good health, that perception defies science, and another parent said milestone development should not be measured by the fatness of a child, but rather by age-appropriate weight and other developmental guides.

The theme addressing the role of family members saw participants giving feedback on the impact of relatives with particular emphasis on how grandparents influence their health decisions or take and make their own decisions. They spoke about

how the actions of family members made them feel and behave. Phrases like, “they indulge them” and “let the children be free” were mentioned when discussions pertaining to family members came up in some interviews. Participants mentioned the not so positive influence of grandmothers who give the children sweet treats and other unhealthy options. P2 stated, “Grandmothers for example tend to give more of the things I don't want the children to have so I must watch out for actions like that.” P4 said,

I think that's everybody has a role to play. I think if there are grandparents in the child's life, I think that grandparent can influence the child either for good or for bad, meaning that they would give them stuff, give them food, food from different groups that they should not get at that time. They will indulge them.

Although some participants felt that family members were more likely to go against the health decisions they have implemented, one participant indicated that support from family members was important in her taking and making health choices. P3 said,

Family members are important to reinforce the goals that I am looking for to improve the health of my child. Another participant reinforced the importance of referent others but shared that their input is not consistent.

P10 furthered, “I think that these people play a very important role, sometimes they do and say the right thing but sometimes they don't give the right suggestions for what the children should eat.” Most participants felt that family members could do more to support them with healthy lifestyle initiatives they have implemented; they found that some family members were more inclined to indulging the children.

Per the TPB, perceived control reflects the perceived belief that one has control of factors that influence what is happening or will happen, in this case, about the health of one's children. When participants shared the experiences as it relates to health concerns, there was not a sense that they were unable to exercise control over childhood obesity. If a change was identified, a potential solution was provided. For example, some participants mentioned the potential negative input from family members who may interact with their children outside of the parent's presence. One participant had this to say P2 stated, "Grandmothers, for example, tend to give more of the things I don't want the children to have so I must watch out for actions like that." P10 asserted,

The parents have maybe 99% of the role. The 1% I would take off just for when they are out of sight, like perhaps at school and they be spending money at the canteens. Some participants address the need for greater support from government bodies to implement policies and actions that would offer greater control over certain factors parents find challenging.

P4 furthered,

I believe government has responsibility of setting policies and implementing programs for the population to reduce the incidents of childhood obesity. So, it is not only at the level of the school or, or the household, but at the parliament and government level. And the government ministries, namely the ministry of education and the ministry of health.

RQ2: What are parents' thoughts about school-based health initiatives?

The themes parental responsibilities, the business of schools, and societal impact were all responsive to the second research question. Most participants had a positive thought toward school-based health initiatives. They referred to schools as a main supporting entity and facilitator of better health outcomes for children. The participants indicated that parents had a responsibility to adapt the health initiatives shared by schools; they took it further by adding that they could seek out additional health information from schools. According to P4, “I think it's very important that schools make suggestions as a parent you may not be aware of everything. And secondly, some of what they say can be helpful.” P2 stated, “. . . Schools need to share information.” Although some parents indicated that they would rely on the information shared by schools, one participant voiced that she takes it only as a suggestion because she is capable of making her own decision. P5 said, “Schools don't have anything to do with my decisions, apart from perhaps offering healthier meals at the schools. However, she did see schools as a place where health options are to be made available.”

The business of schools emerged from both positive and negative interview responses. Notwithstanding that, it seemed that most parents support the intervention from schools because schools are seen as places of influence. P4 asserted,

In kindergarten, they should be teaching that fruits and vegetables are good for you and healthy, encouraging that at the primary level, I believe the word obesity should be introduced. And the program of exercise and healthy eating should be promoted. And in, at a high school or secondary level, you should have a very

comprehensive program that is saying to that age group that you need to eat healthy, otherwise you will be doing your future wellbeing some harm.

According to P10,

Schools should teach us how to watch what the kids eat or what we give them at home. So, the kids can know why they are eating what they are eating. But as a parent we should also know what to do for our children, what to give them to eat, schools can tell us of healthier choices. There is sustained action against childhood obesity if the schools are not on board.

Participants identified factors that reflected the theme, societal impact, meaning that influential institutions (and sometimes persons) were seen as sources of aid and support for parents wanting to control or curtail childhood obesity. Among the identified influential institutions or persons were educators and other school officials, healthcare providers (e.g., school nurses), and government agencies. Most participants felt that these entities could support and advocate for school-based health initiatives and that they would pay attention to information shared by these entities. P4 indicated,

I believe government has responsibility of setting policies and implementing programs for the population to reduce the incidents of childhood obesity. So, it is not only at the level of the school or, or the household, but at the parliament and government level. And the government ministries, namely the ministry of education and the ministry of health.

P9 asserted,

I want to say that it's, it's not a single prong approach. It's not just from the parents, not just from the schools. We all have change in our mindset, and it has to come from our educational point of view. When I say an education, you have to start by educating your population, you have to start by letting your people know that how we have been eating is not, well, it's not, it's not profitable. Right. And that, um, that takes money and it takes the government. Right. We can do it in the schools, in small pockets. I mean, it depends on your outlook. You can start small and go big. And you asked the government to start the school. That is how we have to start. Make it happen in the schools, the same message being preached at home. And that's same message be preached on the TVs and social media. We can't forget that media influences the kids very much. Use social media bombard the kids with healthier choice option and information on social media. Everybody saying the same thing.

### **Summary**

This study explored support for school-based programs for childhood obesity among parents\guardians living in Jamaica. This chapter presented the process and results of the data collection and analysis portion of the study. The 10 parents\guardians in this study were asked a series of interview questions relating to the two main research questions. The first research question was to gain a better understating of parents' beliefs about their role in curtailing childhood obesity, and the second research question sought to better understand parents' perception of schools and school-based childhood obesity programs responsibility to fight childhood obesity. Six themes emerged from the lived

experiences of the participants in the study, including parental responsibilities, the business of schools, societal impact, the fluffy culture, family members' role, and control issues.

Participants generally indicated that parents are primarily responsible for preventing childhood obesity. For the most part, participants felt that school-based programs and schools play an important role in leading the charge against childhood obesity. A few parents spoke about the school's responsibility to educate both children and parents about selecting healthier options for healthier lives. The participants identified the impact of some societal institutions, such as healthcare providers and government bodies. Some key words from the participants included "government involvement," "multiple person approach," and "community approach." Most participants felt that government had the power to implement and enforce programs that would support parents in fulfilling their primary role of curtailing childhood obesity. At the close of each interview, participants were asked to share any other thoughts they may have that were not covered in the interview. Similar responses included "government action needed," "multiple person approach," and "schools have a key role."

Chapter 5 will present an interpretation of the study results and relate them to the existing literature. I will discuss the theoretical framework that guided this study. Recommendations for future research and strengths and weaknesses of the study will be discussed. The chapter will close with implications of these results for positive social change at various levels.

## Chapter 5: Discussion, Conclusions, and Recommendations

### **Introduction**

Childhood obesity remains a global health concern. According to Hildbrand et al. (2018), parents who believed that childhood obesity was a problem were more likely to support school-based health programs than parents who did not. With a desire to better understand how parents felt about school-based health programs designed to prevent childhood obesity in a culture where some favor being overweight, I used qualitative phenomenology to solicit the perspective of parents with overweight or obese children. Several recurrent comments emerged from the interviews, such as, feeling positive, responsible, no support, support, control, limited control, government support, whole of society approach, positive support from schools, more actions from schools, fluffy, suggestions from others, family members' role, and grandparents' role, home rules and guidelines, school health, and government policies, from which emerged six themes. The themes were parents' responsibility, the business of schools, societal impact, the fluffy culture, family members' role, and control issues.

### **Summary of Key Findings**

All parents expressed concerns about their child or children being overweight although with varied levels of concerns; consistent with their concerns, findings showed positive support for school-based programs aimed at controlling and/or preventing childhood obesity, which supports Hilbrand et al.'s (2018) findings. The parents all agreed that they were primarily responsible for controlling the body weight of their children. Some lamented that while this was their job, there were times when other

factors created obstacles to fulfilling this function. Some suggested that children were able to access less than healthy options when they were not in their parents' presence. Some also argued that grandparents may see things differently and would indulge grandchildren with treats, such as candies and sodas.

The findings on views about school-based health programs were generally positive, with additional comments. Some parents felt that there were more schools could do while others felt that some actions by some schools were counterproductive. According to some participants, controlling childhood obesity requires more than just schools taking actions, rather it requires a widescale approach from other members of society, such as the government, other family members, friends, and especially the parents themselves. Other parents suggested that access to more health and nutrition educational resources could aid them in curtailing or preventing childhood obesity.

The cultural phenomenon fluffy was known by all participants. Fluffy is a notion or thought that being overweight or obese is an appealing and attractive thing; some see it as a sign of prosperity and health. It does speak to a person's body weight in a positive way but was used more when describing adult females. Additionally, parents shared that being overweight was viewed as a sign of health and prosperity by some members of the Jamaican society. Parents in the study did not support the term being used to describe overweight or obese children.

### **Interpretation of the Findings**

RQ1 sought to understand from the participants what parents' thoughts were about their role in curtailing childhood obesity.

All participants in the study felt that parents are primarily responsible for curtailing their children overweight or obese status. Although a few participants commented with some negative feelings on the current weight status of their children, they also commented that they can and will take actions to correct the status. P6 explained, "I feel like it's a failing on my part as a parent." No obvious difference was noted in whether it was the mother's or father's role to monitor a child's weight. Previous studies found that mothers have a greater role and are usually considered more responsible for what children eat, directly impacting their child's weight (Anti et al., 2016; Power et al., 2015). Both mothers and fathers in this study agreed that parents are primarily responsible for controlling obesity in their children. One father expressed that the feeling toward his child being overweight was neutral. P3 shared, "I don't feel bad about it. . . I don't consider it a real issue at an early stage in the life of young children." According to Anti et al. (2016), some fathers have been known not to hold negative feelings towards their children being overweight or obese. The views from past research were also mixed on parents' feelings about their children being considered overweight or obese. The attitude of not feeling bad or neutral toward one's child being obese is not new. Appleton et al. (2017) found that Australian parents preferred not to talk about or take action toward their children being overweight or obese because they felt that it would turn around when the children outgrew that state.

In other studies, results showed that parents may not be pleased when outsiders attempt to intervene in the body weight of their children; some found the topic of childhood obesity sensitive and the involvement offensive (Appleton et al., 2017; Kovacs

et al., 2018). Although one parent commented that the topic of children being obese was a sensitive one, it did not stop the parent from still holding positive views towards action aimed at stopping childhood obesity. Pearce et al. (2014) stated that a positive attitude or feeling toward childhood obesity will hamper actions suggested or implemented to prevent it. In a study with parents of infant children, Jarvie (2016) found that parents no longer thought that chubby babies are healthy, believing instead that chubby babies can grow into overweight or obese children and adults. In another study, the views were different; favorable views were given to overweight or obese children (Ludwig, 2018). The favorable views may have contributed to Ludwig (2018) stating that putting a dent on childhood obesity looked dim. The findings from my study on the unfavorable views held about overweight or obese children could infer a desire to do something about it.

Although the views of parents were mixed on actions or thoughts on childhood obesity, I found in the findings from this and other studies that parents' roles are important, reinforcing the role of parents in curtailing childhood obesity. According to some parents in the current study, children mimic what they see their parents do at home, so if children see their parents eat healthier options combined with exercise, then the children are more likely to do the same when they are away from their parents. This claim was also supported by Marzuki and Rahman (2015), who found that children are likely to copy what they observe their parents doing, and by extension the attitudes of parents will be influencing factors in the lives of children. Other parents felt that while they have a primary role, other factors can negatively influence the example they try to set for their children.

In the current study, while parents agreed that they have primary responsibility for controlling their children overweight or obese condition, they also spoke about others who either supported or hampered them in functioning in their role. The participants indicated that the suggestions could come from others, such family members or they could come from healthcare providers. Again, I found mixed views from the participants P1 stated, “I appreciate the feedback. . . once it comes off in a positive way;” P5 expressed, “They can make suggestions, but there that's just suggestions for me. I do what is right for my children;” P10 explained, “Teachers I think play a positive role in the child's life . . . the teacher can educate parents and children.” Although one parent was not overly positive about suggestions from others, more participants were open to being positively influenced by referent others. There have been prior arguments that the multiple stakeholder approach is necessary to put proper control on the growing trend of childhood obesity (Anti et al., 2016; MOH, 2013; WHO, 2016).

Participants suggested that grandparents and family members may be more inclined to giving in to the children’s desire for what they consider less than healthy options. Phases such as “appease the children” were mentioned in comments pertaining to grandparents and other family-related referent others. P8 explained, “Grandmothers tend to give children anything they want to eat and say, let the children eat and be happy,” and P10 furthered, “But the grandparents or other relatives, they can be very negative in the children's life when they give foods that are not appropriate for that for the child.” However, notwithstanding the comments related to grandparents and other family members, parents seem likely to be influenced by the views of referent others. The

findings suggested that most parents show a willingness to take suggestions from others and believe that while they are primarily responsible for the health of their children, other factors and persons do have a role to play in curtailing childhood obesity. Other health-related studies also support the TPB claim that views of referent others do influence views and attitudes towards health behaviors (see Andrews et al., 2010; Kaiser et al., 2018; Quinn et al., 2011).

The study revealed that parents sometimes had control, and sometimes they experienced some challenges that threatened their control over factors that impact their role in curtailing childhood obesity. According to Choy and Isong (2018), participants are more likely to support health initiatives or hold positive attitudes toward health issues if they have good control over factors related to the health issue. Parents said that they had full control when the children were in their presence, but when the children were outside of their presence, there was not much they could do to influence the kinds of food the children can access or consume. One parent commented that financial challenges (a factor outside of one's control) was a factor that could impact actions toward controlling childhood obesity. P8 stated, "Sometimes these people also tell you to provide things you can't afford." A variation was noted; parents commended schools for taking a step in the right direction by providing a healthier message toward curtailing childhood obesity, but on the other hand, parents commented that children can still access less healthy options such as sodas and candies while they are away from them and are at school. Although some participants expressed concerns about factors outside of their control, there seems to be more positive attitudes toward views on parents' role in and intention to act toward

addressing this health issue. The study revealed that participants did feel that action was required on their part if anything was to be done about childhood obesity. The parents suggested that interventions from country leaders could help restore perceived control. The recommendations for intervention at the governmental level was previously echoed in research and other publications (see Ludwig, 2018; MOHW, 2016; WHO, 2016). The recommendations were echoed by parents, government bodies, and global health bodies.

As mentioned above, the parents exist in an environment where some view being overweight or obese positively. The construct fluffy is defined as the positive views associated with being overweight or obese. According to the findings of the study, parents were familiar with the construct and the favorable views ascribed to it. However, no one felt it as a term that should be used to describe children. P2 said, "I don't think it should be applied to children because it can be used in a sexual way." Although the parents expressed a negative attitude toward the construct and overweight and obese children, there seems to be an acceptance of the term for adults, particularly females. P4 claimed, "Thick and looking very good being fat." The literature showed that the construct is not unique to the Jamaican population. However, a difference was noted in a study involving a Mexican American population. According to Martinez et al. (2016), parents indicated a preference for fluffy babies although they appear to be aware of the dangers of being overweight or obese. The participants were fond of this term for children, which is in contrast to was noted in with the current study population.

The second research question sought to understand how parents felt about school-based programs aimed at curtailing childhood obesity.

During childhood years, children learn from home but also from their school environment, not only because they spend time in these environments, but they also learn through what they see and hear in these places (Bergstrom et al., 2015). The results revealed that participants in the study held more positive than negative attitudes toward school-based and the support for school-based health initiatives aimed at curtailing childhood obesity. Some participants readily shared some school-based initiatives that were implemented in the schools their children attended and lauded the schools for taking steps toward curtailing childhood obesity. Some comments and phrases included “schools help children to be well-rounded,” “I like them,” “mandatory,” and “schools should play a major role.”

In one study, the researchers emphasized the importance of implementing or initiating school-based programs from very early in a child’s life, arguing that these should commence at early childhood educational levels (Lanigan et al., 2019). This position was reinforced by P6, “Programs should be that from a very early age, probably even kindergarten.” The benefits of school-based health initiatives have been determined in previous studies. According to Schwartz et al. (2016), the implementation of water fountains instead of soda vending machine were well received by schools in New York, USA, and the positive effect on reduction in obesity within participating school populations was also noted. Bernal-Delgado et al. (2018) also found that students in the control group, who were exposed to health initiatives (e.g., exposure to knowledge about healthier choices), experienced reduced overweight or obesity levels.

Although results from the current study suggested that participants demonstrated positive attitudes toward school-based health initiatives, some participants also expressed concerns about the counterproductive actions noted in some schools, such as the continued selling of sodas, bag juices, and candies. For these findings, parents insisted that schools have more work to do in fully assisting them in their role to curtail childhood obesity among their children. P1 shared, “For the most part they are trying, but it just needs to be a little bit more proactive action in terms of introducing fruits and stuff like that,” and P2 explained, “They should not have foods like sodas, candies and other less healthy options available in the school canteen.” The requests that schools do more did not seem to inhibit parents from supporting or holding positive views to whatever health actions schools had implemented.

In the current study, I found that parents wanted more actions from schools that support curtailing childhood obesity; however, in another study, the opposite was found. The NCMP in England found that more than 50% of parents felt the organization was interfering in the role as parents and they did not want the NCMP to do any assessment of their children’s weight (Kovacs et al., 2018). The findings from Kovacs et al. (2018) are somewhat aligned with the position taken by P5: “They can make suggestions, but that's just suggestions for me. I do what is right for my children.” Some parents suggested that the programs at school should support the ones they have implemented at home. They also suggested that they are willing to take the suggestions that are shared by schools on how they can improve in their role as parents on a path to curtail childhood obesity. P5 commented, “They do offer some amount of assistance to positively influence childhood

obesity;” P7 said, “Schools should teach us how to watch what the kids eat or what we give them at home;” and P10 asserted, “So, they should provide an avenue where the children will have healthy food choices and support what parents are already doing at home.”

To the best of my knowledge, this is the first study seeking to gain an understanding of how parents feel about school-based initiatives aimed at curtailing childhood obesity; however, according to the Ministry of Health, there are conversations about the implementation of national and school-based programs to curtail the increasing prevalence of childhood obesity. Findings from this study can contribute significantly to that intention by the MOHW. Other studies have shown that many factors can influence how parents feel about school-based health initiatives. In one study, participants were negatively influenced by the views of referent persons, and in another study, inadequate health knowledge were identified as an influential factor (Renzaho et al., 2018; Leichty et al., 2015).

Results from the current study showed that parents were willing to support school-based health initiatives, suggesting that schools provide knowledge on what they as parents could do to better to support the curtailing of childhood obesity. For example, parents remarked that schools could provide examples of what parents could put in their children’s lunch boxes for them to take to school. Bernal-Delgado et al. (2018) found that empowering parents and children with health education and other health information under a school-based health initiative (e.g., reducing screen time, engaging in physical activities, and portion control) was found to be positively received by parents and

contributed to gains in the reduction of childhood obesity. Results from previous studies lend support to the important role of health education in garnering support from parents for actions aimed at curtailing childhood obesity (Leichty et al., 2015; Renzaho, 2018).

Findings from the current study revealed that parents are looking to government to do more in supporting them in their actions against childhood obesity. They suggest that governments should implement policies that are enforced within schools. This was in response to parents claims that some schools' actions are counterproductive to a 100% effort to control childhood obesity. It is apparent that parents feel that they are not able to control some of these counterproductive actions, they also claim that schools are taking positive actions against childhood obesity. P2 said,

If what I said about putting a ban on certain foods in schools is not in effect, the government needs to put that in effect . . . children can have at school what parents do not want then to have . . . more need to be done at the level of the school. The schools should complement the actions of the parents.

The success of school-based health initiatives will require collaborative intervention from parents, schools, the community, and through government policies (Ludwig, 2018; MOHW, 2013; & WHO, 2016).

### **Theoretical Framework**

The TPB is an established social change theory that explains how the beliefs one holds influence the intent to engage in a particular behavior, including behavioral beliefs (i.e., do I value the behavior being contemplated), normative beliefs (i.e., what others

whose opinions I value think about the behavior), and control beliefs (i.e., can I control factors enabling me to engage in the behavior).

### **Behavioral Beliefs**

The views held by parents toward their role in curtailing childhood obesity as well as their thoughts and feelings about school-based programs aimed at putting a stop to it, can contribute to the attitude held toward supporting school-based health initiatives. That attitude could be either positive or negative. It can be said that parents with positive views, feelings, and thoughts are more likely to embrace their role in curtailing childhood obesity as well as supporting school-based programs aimed at doing just that and parents whose attitudes are negative would be disinclined to support these programs. Most of the parents indicated that they had a role to play in taking action to address the overweight or obese state of their children. While they expressed disappointment and failings about their children being that way, they stated that they are taking some actions and are willing to take more actions to address this public health problem. According to Davidson et al. (2017), some parents may be cognizant of their children's overweight problem and may take actions to curtailing the weight concerns not immediately, but later. Comments from parents in this study reflected concerns about their children's weight, comments like, "I feel bad about my child being overweight (feelings)," "I am the one who considers my child's weight an issue (feelings)," "children who are overweight or obese can turn it around (positive attitude)", "parents have primary role to stop childhood obesity (parent's role)," and "socialization starts in the home (parents' role)" were consistent with parents' belief that attempts to curtail childhood obesity were worthy of their support.

### **Normative Beliefs**

Results of this study indicated that parents' attitude toward support for programs to reduce the incidence of childhood obesity were influenced by the views and thoughts of referent persons. It is felt that parents put value on what some of these persons have to say about support for school-based health initiatives. In this study, referent persons were identified as other family members, healthcare providers, and school personnel whose opinions they valued and sought. It is important to note that a few participants made specific reference to grandparents as referent persons during their interviews, but perhaps more as not being supportive of school-based health programs. According to Ajzen (2002) subjective norms and normative beliefs are influenced by social norms that inform individuals' attitudes and behavior, norms that are specific to one's referent group.

It was evident that input and views of referent persons, such as family members, grandparents, and family doctors do play a role in decisions taken by parents toward taking action against childhood obesity. The feelings of parents toward the input from referent others were both positive and negative. Parents felt that family members were more inclined to give the children food items that could increase obesity, sometimes making comments like, "give the children what make them happy, such as sodas and sweets." This suggests that parents are to allow others to give the children edible items that do not support actions aimed at preventing childhood obesity, which implies that referent others may not support school-based obesity programs. School-based obesity prevention programs favor healthier options and suggest that children reduce their intake of high caloric food items such as sodas and sweets. Kaiser et al. (2018) found that

support from referent others positively influenced Mexican heritage parents' willingness to support childhood obesity prevention classes aimed at controlling childhood obesity.

In the current study, parents suggested that support for obesity-controlling measures were not readily supported by specific referent others (family members), but that did not negatively influence parents' support for school-based health programs. Although parents did not heed input from family members whose comments countered parents' efforts to control their children's obesity, consistent with Kaiser et al. (2018), parents did heed input from referent others, notably teachers and family doctors, who felt that parents' support for these programs was important.

Parents in the study reported that not all referent others supported their actions or their willingness to support school-based health initiatives aimed at controlling childhood obesity. Some parents voiced that family members, like aunts and grandparents, did not readily show support for these desired actions. On the other hand, parents claimed that other persons, such as schoolteachers and family doctors expressed positive reactions to parents' intentions to curtailing childhood obesity. The support from the willing referent others was sufficient for parents' willingness to support actions aimed at curtailing childhood obesity.

Results from previous studies also show similar findings. According to P5, "They can make suggestions, but that's just suggestions for me. I do what is right for my children." Choy et al. (2018) found that parents complied with referent others who disapproved of children's sweetened beverage consumption. For Quinn et al. (2011), participants were more likely to participate in a health-related clinical trial when they

sensed support from referent others and likely would not participate if referent others did not support the action. All participants saw schools as resource centers not only for their children but also for the parents themselves. Some comments shared by parents related to the schools and school-based health initiatives were, I think they are trying, they should be education students and parents on healthier choices, a place for socialization, some schools have feeding programs like giving nutri bun and milk (local meal supplements), teachers are important in motivating students, and they should be more proactive in introducing foods like fruits and stuff like that. School-based health initiatives have the potential to change the trajectory for overweight and obese children and should include support from teachers and health promoters, such as nurses (Pablos et al., 2018).

### **Control Beliefs**

It appears that without mandates and policies at the governmental level some parents will continue to ask for more structured actions within schools. Many of the participants suggested that although some schools were taking actions against childhood obesity, much more needs to be done. For example, children can still access less than healthy snacks from their school canteens, although some parents indicated that these were not allowed in their homes (i.e., no perceived control). This was by no means saying that schools are not supporting healthy initiatives, but one parent felt it was in part and not in whole. P5 expressed, “Apart from providing healthier options, schools should put a ban on sugary drink sales, although you may ban it at home, they can, they can buy them at school. But if they are not there, they will not be able to buy them.” A parent expressed that without the government’s wholehearted effort, parents, by themselves, lacked the

perceived control needed to do their part. The feelings and attitudes toward government involvement in curtailing childhood obesity remained positive for another participant: P6 furthered, “I believe government has responsibility of setting policies and implementing programs . . . to help support parents . . . the ministry of health is one such entity, and the ministry of education.” Studies have shown that where barriers to engaging in a desired behavior are limited or non-existent, parents are more likely to take control of their children’s diet and exercise habits and support school-based health initiatives that promise to do the same (Andrews et al., 2010; McDermott et al., 2015 & Quinn et al., 2011).

Despite the parents’ suggestions that more interventions at the governmental level could help with better controlling childhood obesity, they did feel that they possess the ability to control events or actions that could curtail obesity for their child or children. There were no expressions of lack of perceived control on the part of the parents to do what is or was necessary to aid in the fight against childhood obesity: P8 stated, “. . . So for me it doesn't matter, I have control.” In a study by Andrews et al. (2010), parents felt empowered to control their children’s food choices. Likewise, Quinn et al. (2011) also found that perceived control over a situation positively influenced participants’ willingness to participate in a clinical trial for lung cancer patients. These and other studies, including the current study, find that having a level of perceived control can positively influence behavior.

### **Limitations of the Study**

My initial desire was to get participant representation from all 14 parishes in the country; however, willing participants were obtained from only five of the 14 parishes. It is possible that participants from other parishes may have shared other views. That said, I had intended a minimum sample of 14 but was able to recruit only 10. I also experienced challenges reconnecting with some participants after the interviews were transcribed in an attempt to engage in another level of member checking. When contact was finally achieved, participants were busy; the lapse in time to reconnect may have impacted the views they previously shared.

This was a qualitative study and as such generalizability of results was not the focus. The views shared represented a wealth of personal knowledge as experienced by each participant. Although the outcomes from this study represent only the views of my participants, the information collected yielded valuable insights. According to Toma (2006), with sufficient detailed information, a variety of people (including policymakers, parents, and researchers) should be able to replicate the study with different populations in other settings after intentional review of the study details.

### **Recommendations**

The insights gained from this research will contribute significantly to existing knowledge related to childhood obesity. During this research process the participants suggested multiple recommendations of how this phenomenon can be better controlled. It is from those suggestions that I would like to make the following recommendations for future scientific research. These recommendations could add value the trend of exploring

this phenomenon so that better health choices and decisions can be made. Conducting additional research on the phenomenon using other theoretical perspectives could prove valuable by expanding the use of the TPB. From the needs identified by the parents I would like to make recommendations on three.

According to the participants, schools are taking steps to implement healthier programs and choices for children; however, some participants felt that some action by schools remain counterproductive. The parents also spoke about the perceived impact of other family members, especially grandparents, in going counteracting the healthy options or guidelines they have implemented for their children. Parents also spoke about children opting for less than healthy options when they are out of their presence. I recommend that a study be done with school officials, exploring their thoughts on what constitutes healthy programs for children that could see a reduction in the rate of childhood obesity and also explore the role of health education for multiple stakeholders.

Other research could explore family members' (e.g., siblings, aunts, uncles) attitudes toward supporting parents in their efforts to curtail childhood obesity. And, finally, research should seek to understand how children, themselves, feel about the foods they are given, including foods provided in multiple social settings. Clearly, parents need and want to be better informed about the myriad factors that contribute to their children's health. Focus groups could be conducted to learn exactly what parents already understand and where that understanding is lacking. Health education that directly addresses information critical to reducing the incidence of childhood obesity could be made available to all stakeholders.

### **Implications**

Being able to positively impact the health of school-aged children, the future generation of any society, will bring about positive social change. By informing educational strategies, the findings of this study have the potential to influence not only attitudes and views of parents (as they were the focus of the study) but policymakers', school administrators', and parents' efforts to change children's lifestyle choices. The need for more educational implementation was reinforced by many parents during the interview process. It was stated that schools can be a place where information about healthier lifestyle choices can be taught not to only students, but also to parents. Schools could share health education information by live sessions, virtual sessions, and even by sending home healthy lifestyle related flyers with children. I think it would also be important to ascertain from parents what is already known, by doing this, areas of opportunities will be identified. Education centers can have parents complete approved questionnaires seeking to gather information on existing nutritional and healthy lifestyle knowledge. By doing this, gaps could be identified, and steps taken to fill those gaps.

Previous studies reinforced the benefits of empowering individuals through acts such as education, with the aim of creating positive social change; empowerment can lead to positive social change (Maton, 2008; Neville, 2009). Participants in the current study advocated for more educational information that would better equip them to take more informed and educated actions against childhood obesity. They also advocated for other to be empowered to take actions that support the prevention or curtailing of childhood obesity. Throughout the literature it was also noted that advocacy was made for multiple

stakeholder approach to the curtailment of childhood obesity. Maton spoke about it taking a village to empower a child while Neville sought to shed light on the importance of the community approach in advocacy and empowerment. I hold the view that the posits from these two authors give credence to the message from this current research on the pathway of achieving social change.

Participants also expressed the need for the government to institute policies that will better support parents in their role to combat childhood obesity. Policymakers should explore existing best practices and adopt those that are appropriate for their environments and budgets. The government of Jamaica insists that a multiple-stakeholder approach will be needed if significant changes in the obesity rates that now exist within the country can be made (MOHW, 2018). Importantly, parents should be made aware of these policies so that they can see that their suggestions were not ignored but valued; this could support engagement (buy in) from parents. It is relevant and important to have parent engagement and support for the success of health education programs involving children (Leichty et al., 2015; Renzaho et al., 2018; Bernal-Delgado Bernal-Delgado et al., 2018). Creating awareness of a healthier way of life is the best evidence of achieving positive social change. This change will also have positive financial benefits given that reducing obesity will reduce the incidence and prevalence of non-communicable diseases such as diabetes.

### **Conclusion**

The findings from this study support the literature insofar as curtailment of childhood obesity will take the effort of multiple stakeholders. Additionally, the Jamaican Minister of Health (MOHW) is advocating for a whole-of-government and whole-of-society

approach to fulfill the country's mandate to control this epidemic. The claim for a multiple stakeholder approach to curtailing childhood obesity was echoed by parents in this study. Other researchers have reinforced the importance of a multiple-stakeholder approach as a step in the right direction to putting a dent in the growing trend of childhood obesity (Anti et al., 2016; Ludwig, 2018; Carey et al., 2015). The literature also provides evidence that parents are inclined to support school-based health initiatives aimed at stopping childhood obesity. Some have seen gains in weight management for school-aged children because of partaking in school-based health initiatives (Ezzati, 2017; Schwartz et al., 2016; Bernal-Delgado et al., 2018). The results of this study provided rich details of participants' lived experience which can aid in program and policy implementation with the potential to change the trajectory of childhood obesity. This will result in positive social change, better health, better self-esteem, lower financial impact on the national health budget, and an overall healthier society.

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### Appendix: Demographic Questions

- What is your age?
- (1) **below 30 years** (2) **30 to 40 years** (3) Over 40 years
- What is your gender?
- What do you consider you is your socio-economic status?
- (1) Middle class (2) Upper class (3) Other
- What is your salary band?
- (1) Below \$1000 monthly (2) Between \$1000 - \$3000 monthly (3) Above \$3000 monthly
- What is your highest education achievement?
- What is your race\ethnicity?
- Are you a parent, guardian or grandparent?

#### Research Questions:

**RQ 1----What are parents' beliefs about their role in curtailing childhood obesity?**

**RQ 2----What are parents' thoughts about school-based health initiatives?**

#### Interview Questions:

1. How do you feel about children being considered overweight or obese?
2. Do you think overweight or obese children are at risk for developing medical problems such as, diabetes, HTN?
3. Describe what the word *fluffy* means to you?
4. What are your thoughts about the notion of *fluffy* as it applies to your child(ren)?
5. Are you familiar with the term 'meat on their bones'?
6. What does that term mean to you?
7. How do you feel about the thought that overweight or obese children will outgrow their fat\chubbiness?

8. How do you feel about other people, such as grandfathers and doctors, making suggestions about what you should do to influence the health choices for your children?
9. What are your thoughts about school-based health initiatives?
10. What role should schools play in the healthy lifestyle decisions you take and make for your children?
11. What are your beliefs about parents' role in curtailing childhood obesity?  
Do you have any other comments related to what we have been discussing?