2021

Understanding Parent/Child Experiences Affecting Obesogenic Behavior in Children

JEAN GAFFNEY
Walden University

Walden University

College of Health Professions

This is to certify that the doctoral dissertation by

Jean Gaffney

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Kimberly Dixon-Lawson, Committee Chairperson, Public Health Faculty
Dr. W. Sumner Davis, Committee Member, Public Health Faculty
Dr. Ahmet Sapci, University Reviewer, Public Health Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2021

Abstract

Understanding Parent/Child Experiences Affecting Obesogenic Behavior in Children

By

Jean Gaffney

BS, Stevenson University 2007

BS, Morgan State University, 1986

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health - Track II

Walden University

November 2021

Abstract

Families living in an inequitable food environment are impacted by limited access to healthier foods inventory. Habitual consumption of foods lacking adequate nutritional value increasingly contributes to the heightened prevalence of obesity and premature death from non-communicable chronic diseases such as diabetes and heart disease. This basic qualitative analysis examined factors that impact parental decisions in food choices among obese and overweight children. The study explores the level of understanding held by low-income parents/caregivers as it relates to basic nutritional knowledge. Bandura's Social Cognitive Theory framed the study. A purposeful sample of eight parents/caregiver between the age of 18-50, parenting at least one overweight or obese child, and living in targeted zip codes offered primary data through semi-structured open-ended interviews. Data were analyzed thematically and produced the following eight themes related to: distance and food shopping, value placed on available food selections, work schedule limitations to fruits and vegetables, cultural influences on feeding patterns, meeting the challenge in menu structure, importance of portion control, after school snacking, and adaptability. This study provides results that may provide a better understanding into the need for better informed parental understanding on healthy meal preparation, eating practices, and nutritional knowledge. These findings underscore the importance of sufficient community supermarket access to help reduce health risks and premature deaths related to consuming inadequate nutrients. Such innovative steps could result in positive social change for the entire community.

Understanding Parent/Child Experiences Affecting Obesogenic Behavior in Children

By

Jean Gaffney

BS, Stevenson University 2007

BS, Morgan State University, 1986

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health - Track II

Walden University

November 2021

Dedication

This dissertation is dedicated to the memory of my mother's Willie Mae McNair, who passed too soon, and my aunt, Dr. Gabrella-Gore McNair, who raised me as her own after my mother's death. Both of my mothers, through their loving guidance, made lifetime impressions upon me that direct my daily works toward reaching my academic goals. I am grateful to both for the wisdom they imparted and the love that we shared.

Acknowledgments

First, I acknowledge God who offered me the ability to start and complete this important study. Next, my committee offered me the support and guidance that thrust me toward a successful high-quality study. I want to thank my Chair, Dr. Kimberly Lawson, the Walden Residency Team, and the Capstone Intensive Research professors. Each provided me with an element of guidance required to meet the Walden University Rubrics Criteria for a successful dissertation product that can be valued by readers. Finally, I acknowledge my immediate family for their loving understanding when I had to give priority to my research.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Obesity has reached pandemic proportions worldwide causing serious health problems that contribute to about 2.6 million deaths worldwide and about 300,000 deaths in the United States (National Institutes of Health [NIH], 2016). Obesity and overweight are determined by use of the body mass index (BMI). This measurement is calculated by determining a person's weight in kilograms divided by the square of the height in meters (World Health Organization [WHO], 2021a). The idea of prevention is believed to be related to the concept that early intervention can halt the process before the child is defined as obese. By definition, a child is diagnosed as overweight when the BMI measurement is 85% when compared to children of the same gender and age. However, when the BMI measurement is 95% as compared to children of the same gender and age, the child is diagnosed as obese (Centers for Disease Control and Prevention [CDC], 2019b).

The WHO reported that obesity among children has increased tenfold in 40 years from 11 million to an estimated 124 million in a 2016. An estimated 41 million children under the age of 5 were found to be overweight worldwide, particularly in poor countries having more economic challenges (WHO, 2021b). The organization also reported that 39% of men and women over 18 were overweight (BMI $\geq$ 25 kg/m^2). Moreover, 11% of men and 15% of women were obese (BMI $\geq$ 30 kg/m^2). This data shows that about 2 billion adults worldwide were overweight and greater that over half a billion were obese (WHO, 2021b).

In the United States over the past 30 years, the obesity rate has more than tripled. The estimated cost for treating obesity in the United States in 2008 rose to $147 billion (CDC, 2021b). Fourteen million dollars in healthcare was spent treating obese children and the illnesses they develop because of being obese. The increased prevalence of obesity is a global concern that led the American Medical Association to classify obesity as a disease in 2013 (Covington, 2017). An updated publication from the CDC for 2017-2018 from the National Center for Health Education Standards indicated the prevalence of obesity had increased to 42.4% from 30.5%. (CDC,2018).

There is growing concern that some school-age obese children are showing signs of chronic illnesses including diabetes, hypertensive/cardiovascular symptoms, and problems with mobility due to obesity. Their physical limitations can impact how they think about themselves, their peer relationships, and their academic performance (Ling & Stommel, 2018).

The WHO estimates that worldwide more than 41 million children need programs designed to teach about changed lifestyle that should begin as early as possible (WHO, 2020b). Obesity risks for children can begin *in utero* according to research conducted by Haire-Joshu and Tabak (2016). Their work recognized that mothers who developed gestational diabetes were likely to deliver infants who were at higher risk for pediatric diabetes, and, eventually, adult diabetes. As obese children grow, besides developing pediatric diabetes, they can develop other medical complications such as hypertension, high lipids, and early signs of kidney disease. The presentation of early physical problems impacts how they think and feel about themselves. As they grow, they may

develop poor self-esteem and experience a decrease in academic performance (Wang et al., 2017).

Maryland ranks twenty-four in the nation for childhood obesity (Robert Wood Johnson Foundation, 2019). Data showed that between 2010-2016, 14.5% of the youth between age 10 and 17 were obese. Locally, the Baltimore City Health Department (BCHD, 2017) addressed the nutritional status of school-aged children. The report revealed that one third of high school students are either overweight or obese. Moreover, the report found that one in four high school students consumes one or more regular 16-ounce soft drinks daily. Less than half consumed one or more servings of vegetables daily. The data further indicated that less than half of middle school students (ages 11-13) ate breakfast, and one in four school-age children (5 to 10 years old) reported to school hungry. In some cases, children leaving school had not eaten since leaving school the day before. Those show the highest risk of developing poorer cognition and behavior changes (Wang et al., 2017).

In 2017, BCHD reported that children who lacked access to regular meals were at higher risk for decreased academic performance. The report suggests that chronic, unsatisfied hunger places affected children at risk for obesity and delayed mental and physical growth. The City's report revealed that one of three children in Baltimore City lives in a food desert. A food desert is defined as the area where access to healthy food is more than .25 to 1.0 mile away, and family household income for a family of four is less than $25,000 annually (United States Department of Agriculture [USDA], 2019). Baltimore City children living in food deserts are more likely to eat unhealthy foods

purchased at corner stores. These foods are typically high in calories and low in nutritional value.

Research affirms that bullying frequently can be a major issue that poses a threat for violence against children at any age (CDC, 2020b). However, for obese children and adolescents experiencing bullying can be an even greater threat. Lian et al. (2018) conducted a school-based, cross-sectional study in 39 North American and European countries and regions. A total of 213,595 adolescents aged 11, 13, and 15 years were surveyed in 2009 and 2010. Lian et al. identified chronic bullying victimization using the Revised Olweus Bully/Victim Questionnaire. Weight status was determined using self-reported height, weight, body self-image, and BMI based on perceived weight. Lian tested associations between underweight and bullying victimization using three-level logistic regression models. They found that perceived weight and self-rated overweight were related to chronic bullying victimization. They further discovered that children who were overweight or underweight were at risk for chronic bullying.

Prior research has not been able to explain some of the factors influencing escalating obesity rates among children despite local out-patient programs operating in affected communities. However, they have identified the growing need for a deeper understanding of the conditions that might influence the presence of childhood obesity through studying the viewpoints of parents. Further research needs to explore thoughts, attitudes, and experiences of parents and their perceptions regarding their obese or overweight child.

Background

Childhood obesity and its health consequences impact both the lives of parents and children (CDC, 2019c). In the United States, some chronic diseases among children living in low-income areas are related to inadequate nutrition. The impact of this health threat affects children along physical, mental, psychological, and social levels. The impact is seen in decreased academic performance, skeletal problems, and bullying. Lian (2018) demonstrated these physical health and intellectual health threats among obese young and adolescent children living in poverty. Research gaps regarding parent understandings about childhood obesity must be addressed to generate positive change that supports positive nutritional behaviors that serve to help decrease risks for chronic illnesses.

A child's risk of obesity can begin in utero. Blake-Lamb et al. (2016) systematically reviewed 5,952 studies and selected 282 studies seeking to identity risk factors within the first 1,000 days of a child's life. Researchers selected studies conducted December 13, 2014, through March 15, 2015, with children between age 6 months and 18 years who had a BMI measurement over the 85th percentile age and sex. Their review repeatedly showed that those children who developed obesity had common risk factors prenatally, which included mothers who had higher pre-pregnancy BMI, higher maternal excess weight gain in pregnancy, and prenatal tobacco exposure. In my study I sought to further explore this problem to learn more on how parental health relates to children developing obesity. This study showed how the prenatal health was significantly associated with the possibility of childhood obesity.

The results of the Blake-Lamb et al. (2016) study identified value in teaching basic nutritional education early, even prenatally. This correlated with the potential influences that parents and grandparents, who may be alternate care givers, can influence health outcomes for at-risk children.

Overweight and obesity among children and adolescents are global problems of our time. Due to their authority and role modeling, parents play an essential part in the efficacy of prevention and intervention programs (Ziser et al., 2021). This study assessed barriers that parents of overweight/obese children face in preventive and interventional health care utilization. Sixteen parents were interviewed. Content analysis was performed, and barriers to change were allocated to their stage of change according to the transtheoretical model. The results identified main barriers for parents as the underestimation of health risks caused by overweight/obesity. Parents seem not necessarily in need of theoretical knowledge for prevention and interventions. Ziser et al. (2021) posited that there would be value in offering parental support in evaluating the weight status of their child and resources that would support behavioral change.

The 2005-2014 National Health and Nutrition Examination Survey (NHANES) described the parental and child self-weight perceptions and their associated sociodemographic factors. A sampling of 16,869 children aged 2 to 17 years was used. For overweight/obese children aged 2 to 15 years, 61.2% of parents underestimated their child's weight; For overweight/obese children aged 8 to 17 years, 55.2% underestimated their own weight. For children aged 8 to 15 years, 77.8% of parents and children agreed on the weight classification.

The NHANES report (2016) indicated that highest rates ever documented in obesity among children was at 18.5% and 40% for adults. The NHANES report predicted percentages will increase even more over the next 10 years.

Research by Blake-Lamb et al. (2016) grounded my study on parental attitudes and knowledge about childhood obesity. Additional research is needed to understand how parents think about and behave regarding their children's weight challenges. With the enhanced understanding gained through my study, I hope the novel ideas that emerged will serve to maintain parental interest in nutritional education and positive behaviors that reflect overall wellness to include healthier eating lifestyles.

My study examined this phenomenon through the lens of parents' lived experience. The goal was to help parents improve their knowledge and/or obesity health literacy. I hoped that effective parenting behaviors will develop that show measurable improvements in reducing the health risks for obese children. This study provided a unique opportunity to help reduce the gap in literature regarding this subject.

Problem Statement

Childhood obesity is a global health problem affecting 18.9% of children in lower income groups in the United States (CDC, 2019a). I identified gaps in the literature about understanding parental attitudes and knowledge of childhood obesity. Much more needs to be learned about parental attitudes and health behaviors that could impact their children's health status. This study addressed the research gap in understanding the parental role in this problem by demonstrating effective methods that improve self-awareness for parents. Such self-awareness is essential for positive change in behaviors

needed to generate reflective thinking on their parenting styles and potential health risks for their overweight or obese child. I explored health risks related to diabetes, hypertension, kidney disease, and the environment during this study among children living in a low-income city community.

Obese children living in food deserts often develop chronic diseases that can extend into adulthood (CDC, 2019b; Fang et al., 2019). By exploring additional research that will yield greater parent understanding of this health dilemma, I hope that a willingness for parents to adopt best practice can be developed, which would improve health outcomes in low-income areas where healthy food access is limited.

Purpose of the Study

The purpose of this Baltimore City-based qualitative study was to expand knowledge of parents' decision-making processes regarding dietary behaviors that impact their overweight or obese child. Fourteen percent of the City's children affected by this condition have inadequate access to the healthy foods required for healthier growth patterns. As a result, the children living in the food desert are at risk for premature hypertension, diabetes, kidney, and other metabolic disease. It is crucial to learn of experiences of parents that influence their feeding practices and styles that affect the health outcomes for their children.

Research Questions

The goal of this study was to answer two research questions:

RQ1: What parental attitudes and thoughts guide decisions for food choices for their overweight or obese child?

RQ2: What is the level of understanding among low-income parents/caregivers as it relates to basic nutritional knowledge?

Conceptual Framework

Basic nutritional knowledge and adopted willingness for change encourage the development of self-monitored action crucial to appreciating health benefits. Evidence of such changes is seen by increased servings of healthier fruits and vegetables and by decreased servings of foods high in fat, sugars, and sodium (CDC, 2019b). Such knowledge could help create positive lifestyle change and reduced risk of chronic disease among parents and their children.

The SCT highlighted crucial factors influencing parental behaviors that guide nutritional decisions. Concepts that underpin the SCT promote self-efficacy by supporting self-monitoring, goal setting, rewards, and feedback (Glanz et al., 2015). The SCT could support and guide parents toward the self-awareness required to use new knowledge that aligned with making healthier choices toward positive nutritional behaviors. The SCT proved an effective framework for the purpose of study in that, when applied successfully, it can generate sustained positive behaviors among residents living in Baltimore's food desert.

Nature of the Study

This qualitative study depended on applied concepts drawn from Bandura's SCT developed in 1986 (Bandura, 1989). The key concepts examined in this study included strategies that revealed parental perceptions of their child's obesity-related health risks, nutritional literacy, academic performance, and peer bullying. I approached participants

from Baltimore City's low-income 21215, 21223, and 21229 Zip Code areas. For the purposes of this study, parents selected were between ages 18-50 years old age and parenting at least one child who was obese. Community organizations and/or faith-based groups served as outlets for recruiting eligible parents.

Participants experienced a single telephonic audio-recorded interview lasting about 45-60 minutes. The research instrument included a semi structured, open-ended interview guide. I transcribed audio-recordings manually**.** Recorded data collected remained confidentially held under locked storage with computer password-protected transcriptions. Coded **data** was validated through member checking for trustworthiness; participants reviewed their transcripts so they could make any changes needed to clarify their responses.

Definitions

The following terms are used throughout this study.

Body mass index: BMI is a measure for indicating nutritional status. In adults, it is defined as a person's weight in kilograms divided by the square of the person's height in meters (kg/m2; CDC, 2018; Maryland Department of Health, 2019)

Childhood obesity: This term describes children whose BMI is at the ninety-fifth percentile among children of the same age and sex (CDC, 2019d).

Healthy Food Availability Index: The Healthy Food Availability Index (HFAI) is a tool developed by Johns Hopkins' Center for a Livable Future in 2018. Its measurements are based on points awarded to stores based on the presence of a market basket of basic staple food items. The market basket includes lean protein, whole wheat

grains, low-fat dairy, and produce. Scores can range from 0 to 28.5, with a higher score indicating a greater presence of healthy foods (Misiaszek et al., 2018).

Healthy Food Priority Area: "What were formerly referred to as 'food deserts' are now called Healthy Food Priority Areas (HFPA) . . . Conversations with Baltimore City community groups, residents and national leaders revealed that the term 'food desert' . . . has negative connotations and . . . implies that low healthy food access is a naturally occurring phenomenon, rather than the result of underlying structural inequities" (Misiaszek et al., 2018, p.15).

Health service provider: A health service provider is a physician, physician's assistant, nurse practitioner, nurse, registered dietitian nutritionist, or other specific training for individuals working in providing health care (BCHD, 2017).

Obesity: In adults, obesity is defined as having bodyweight equivalent to BMI 30kg/m2 at 19 years of age (WHO, 2018).

Overweight: This term describes children whose body is above 85% based on the BMI chart of growth and development, (CDC, 2019d).

Social cognitive theory: SCT posits that the individual will act in ways that they believe will lead to positive outcomes and avoid behaviors that they believe will result in negative outcomes (Glanz et al, 2015).

National Health and Nutrition Examination Survey: The NHANES is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations (CDC, 2021d).

National Institutes of Health: The NIH is a federal agency that offers an updated resource for evidenced-based research on childhood obesity (NIH, 2016).

World Health Organization: The WHO was established in 1948 as a specialized agency of the United Nations, serving as the directing and coordinating authority for international health matters and public health (WHO, 2021a).

Assumptions

Assumptions are required components needed for qualitative research studies. It is feasible that at times, some element needed cannot be proven within the study. Theofanidis and Fountouki (2019) wrote that delimitations and assumptions in research should be assessed early and discussed openly to identify possible weaknesses that could compromise the quality of findings and interpretation of data. In my study, I assumed I could access parents in the study community through community-based outreach associations. I further assumed that parents who lived in the low-income areas Zip Codes and cared for at least one overweight or obese child would participate. The selected Baltimore City residents have limited access to healthy food sources because the nearest supermarket is more than a mile away. These assumptions were documented as a part of this study. It was hoped that this study would benefit those families interviewed. Additionally, I assumed that candid responses provided were honest, robust data reflective of parental experiences related to individual feeding styles and interactions with their children about what foods they ate. The assumptions mentioned necessarily supported the aim to reduce gaps in the literature. Innovative ideas emerged that offered a deeper and more sophisticated understanding of parents' experiences in rearing obese

children. It was important that, as the researcher, I assumed that the work done in this study supported assumptions made and that perhaps, over time, would serve as an asset to the local community organizations, local government, and city health departments serving families living in the food deserts. However, it is further understood the risk exists that some elements needed to support my assumptions about the study may or may not have been present during the study period (Theofanidis & Fountouki,2019).

Scope and Delimitations

Participants were limited to parents living in the food dessert demographically described by the city government's specific Zip Code areas. A qualitative, as opposed to a quantitative, method was chosen to explore this phenomenon because it allowed me to visit the experience of those parents feeding and raising overweight or obese children. I designed the interview questions to produce a variety of responses that would shed light on some of the influencing factors that guide the parents' parenting styles and decisions about how they feed their children. The information gained was crucial to developing results that might help mitigate the health dilemma for economically disadvantaged children with obesity having a disproportional risk for illness.

Limitations

Theofanidis and Fountouki (2019) described limitations in qualitative research associated with reliability and validity. Resulted findings may not be applicable in other areas because they occurred in the area specifically selected for my study. As such, it is possible that the results of my study may not be scalable or transferable beyond Baltimore City given that each city might be politically, culturally, and socially unique. I

anticipated that positive change would occur that will benefit the community studied by creating a higher level of self-awareness, confidence, and self-efficacy that will generate improved nutritional knowledge and support positive changes in eating habits within the family. Once established, the nutritional behaviors of the family might serve to inform neighboring communities and other future research projects.

The scope of the current study was limited in several ways. I considered only families living in Baltimore City's low-income communities. Data collection was limited to families rearing school-age children, ages 2-17 years. Further, this study was restricted to detailed information sought from participants as is typically described in qualitative research methods. The responses were intended to reflect honest opinions of participants but were limited by subjectivity. In addition, it was essential to seek out, reduce, and eliminate researcher biases.

High-quality research is crucial to establishing trustworthy and valid results. Researcher and parental biases can present limitations in a study. Member checks and self-reflection on the researcher's part enhance the study's integrity by controlling for or removing possible research biases. Successful research depends upon the collection of credible data, reliable manual analysis, and valid interpretation of participant responses through participant review.

My study aims were to produce outcomes that would create a valid and reasonable research tool for future investigations based on the integrity in the data collection and analysis processes. The structure of a qualitative study method allowed this freedom to explore experiences of participants in their environment in search of

understanding of what their problems meant for them. Such validated information may lead to new levels of approaches to address childhood obesity.

Significance

This study offered a unique opportunity to explore the cognitive and family dynamics that may impact obese children's lives and, specifically, the complexities associated with parental knowledge and childhood health outcomes. Innovative ideas evolved that could benefit the community of study as well as other communities having similar short- and long-term health concerns. The knowledge gained through parental interviewing allowed the chance to experience an up-close look at parental thinking, personal perceptions, and parenting lifestyles associated with their response to their child's obese status. In this study I sought an opportunity to offer insights and valuable opportunities for social change in the targeted community.

Additionally, this study served to reduce the research gap about childhood obesity from the parental perspective. I hope that this study will stimulate future studies on this subject and that whatever new or expanded knowledge gleaned through this study will offer long-term benefit to obese children living in the environment where there exists limited access to supermarkets with healthier food choices. Besides the intended benefits to families, this I hope to generate interest among community stakeholders including legislators, local health departments, and health care providers to further enhance their efforts to improve the well-being of Baltimore low-income residents.

Summary

Childhood obesity has increased in the United States to epidemic proportions. It continues to rise despite program interventions (Vardaman et al., 2020) As such, obese children continue to be at an increased risk for early diabetes and hypertension, physical challenges, bullying, depression, and lower academic performances. These risks are universal, and children living in Baltimore City's food deserts are no exception. Families living in the food desert are raising the 14% population of obese children. They lack adequate access to nutrient-rich food inventories stocked by supermarkets located less than a mile away. In addition, only 30% have vehicle access to a supermarket. The problem has been addressed collaboratively by the BCHD, community faith-based institutions, and partners such as Johns Hopkins School of Public Health, Hopkins Registered Dieticians, registered nurses, and other healthcare workers who collectively and collaboratively strive to help guide parents and children toward developing healthier eating habits and to help prevent chronic illnesses.

Since 2012, BCHD and partnering agencies have implemented the Balti-Market Program that reaches middle school and younger children, and the elderly (BCHD, 2017). The program engages youth to serve the elderly and creates incentives for 18 corners stores to commit to stocking vegetables and fruits and healthier snacks. It offers families and children access to registered dieticians and nurses to work to create better health outcomes for the entire family. In *White Paper: State of Health in Baltimore Summary of Key Issues, Services, and Policies* (BCHD, 2018), the mayor commented on plans to reduce sugary beverages to help curtail childhood obesity and subsequent risks for

hypertension, diabetes, kidney, and other metabolic disease. It is crucial to learn of parental experiences and habits that influence their feeding practices and feeding styles. It is imperative to learn how they view their role in guiding their children's eating habits and how they view their children's potential health risks.

This qualitative study was based on an SCT model of behavioral change. The primary focus was to gain understanding of the lived experiences of parents living in low-income neighborhoods who are making food choices based on their personal parenting skills. The concepts applied using the SCT in this study are discussed in more detail in Chapter 2.

I recruited parent participants through fliers and community-based organizations. Data collected was entirely through telephonic interviews due to COVID -19 disease restrictions. I manually coded, analyzed, and interpreted the data, generating ideas for possible social change in Baltimore City while also informing future research.

Chapter 2: Literature Review

Introduction

Childhood obesity more than tripled by the 1970s and is now considered a global epidemic that continues to rise in prevalence despite efforts to slow and arrest the trend. Historically, proactive policies and provisions of nutrient-rich foods among the community environments have been inadequate. According to the definition published by the CDC, children and teens are considered obese if they have a BMI that is at or greater than the ninety-fifth percentile for children and teens of the same age and sex. The child is considered overweight if the BMI is at or above the eighty-fifth percentile, but below the ninety-fifth (CDC, 2019b). In the United States, more than 13.5 million children and adolescents are either overweight or obese. Children as young as 2 years of age are at risk for developing early signs of hypertension, diabetes, depression, anxiety, sleep apnea, and/or joint problems (CDC, 2018b).

According to the CDC (2019c), the United States health system spends from $147 billion to $210 billion annually representing about 21% of annual medical spending to treat obesity. Fourteen million dollars is spent in treating childhood obesity and its complications. The monies spent to treat childhood obesity have done little to curtail the escalating percentages of cases in the United States. Programs designated to treat childhood obesity are often short-lived because of lack of sustainability. The increasing prevalence is more evident among low-income families where mothers and other caregivers have dietary influence as decisionmakers.

Bergmeier et al. (2020) suggested that it is crucial to understand the depth of the parent/child relationship as it relates to dietary habits and the parent's feeding practices. According to Bergmeier, that relationship can be a predictor of the future eating habits developed by the child and the child's chances for developing obesity. My study examined parenting practices in Baltimore, Maryland, which has the nineteenth highest obesity rate in the country amongst children ages 10-17 with an obesity rate at 15.7% in 2017 (Robert Wood Johnson Foundation, 2019).

The City of Baltimore has a 14% obesity rate among children despite a multilayered effort exerted through their Balti-Market program designed to provide healthy foods outlets and nutritional education for low-income residents living in food desert areas demarcated by Zip Codes 21215, 21216, 21217, 21223, and 21229 (BCHD, 2017). There was a need to explore the problem from a parental perspective to visit their experiences in addressing the obesity affecting their children. It was equally important to ascertain how parents valued healthy food choices as they related to their child's health status.

The purpose of this basic qualitative study was to understand the lived experiences of Baltimore's parents with average annual household income of $25,000 per year regarding their children's obesity (BCHD, 2017).

Vollmer and Mobley (2017) conducted a study to explore the relationship between parental food practice behaviors and children's choices in selecting fruits, vegetables, and foods high in fats or sugars. One hundred-forty-eight parents of children between 3 and 7 years of age were selected. They answered demographic inquiries,

which included categorizing food-related parenting practices using race, ethnicity, income level, and the child age and gender as covariates. The result of the study revealed that when a parent allowed a child to control eating, it was negatively associated with a child's preference for fruit ($\beta = -0.15$, $p = 0.032$). Inversely, when parents encouraged child involvement in meal preparation, a positive association was seen in the child's preference for vegetables. The conclusion made by Vollmer and Baietto (2017) suggested that future research should show more intent to vary nutritional education based on parental food practices. In my study I sought to incorporate this concept in the guided interviews, which expanded questioning as needed while gathering crucial information essential to explore parental feeding styles and practices.

Literature Search Strategy

This basic qualitative research was developed out of a recognition of the lack of adequate research devoted to the study of the lived experiences of parents having the responsibility for guiding the family's eating habits that impact children's food choices. Ernest research conducted in traditional academic and public health databases revealed very few resources to understand the parent/child interactions affecting food choices and feeding practices.

Terms used to pilot my research began broadly with key identifiers such as *obesity childhood, parental views, low-income, socioeconomic status (SES) and health risks,* and *health care disparities*. Research was expanded by more board distinct term identifiers, including *academics, peer pressure, parental attitudes, parental oversight,* and *psychosocial.* Applying a focused approach revealed key constructs related to

challenges facing parents having the primary responsibility of feeding their obese children. The use of PUB MED and Google Scholar articles consistently identified the literature gap as my research went from a broad to a narrowed approach looking for the degree to which parental perspectives varied in feeding children at risk for obesity.

The literature review focused on evidenced-based resources published within the past 5 years. The WHO offered current articles describing the physical consequences of obesity in children and the governmental burden of it. Further, the National Library of Medicine and National Institute of Medicine proved informative in defining health threats caused by childhood obesity.

As I searched state and local community for relevant data, I found publications by the Maryland Department of Health and BCHD. Following an extensive search of more than 100 publications, core articles proved that the gap existed in research on parental attitudes and lived experiences in addressing obesity among their children. The research showed the need for an in-depth understanding of the significant role parents play that can affect the weight status and the potential health risks for obese and overweight children.

In reviewing published studies, exclusions were made if the topic veered away from the focus of the study or if publications were outdated. As my search continued, I viewed more than 150 articles, and the most pertinent were identified. Reading the relevant articles offered the chance to log commonalities for further exploration. In reviewing the literature on this subject where multiple researchers were quoted, those

selected were more associated with the goal of my study in exploring parental attitudes and challenges experienced in rearing and guiding the eating habits of their children.

Vollmer and Baietto (2017) performed qualitative research using tools such as the Parenting Dimensions Inventory Questionnaire as an interview guide. The questionnaire offered researchers the ability to describe parenting styles and practices by comparing authoritative versus lenient parenting styles in guiding children's eating behaviors. In one example cited, the results showed that authoritative parenting practices showed fewer cases of childhood obesity than parents who were more relaxed in overseeing the types of foods their children consumed.

The gap in research illustrated (a) the need to better understand parental/caregiver influences on food choices, and (b) the need to be able to determine the level of parents' basic nutritional knowledge and how nutritional literacy might impact the prevalence of obesity among children. My research probed parental understanding of basic nutritional knowledge as identified as a recognizable need by Vollmer and Baietto (2017). Further, the pandemic level of childhood obesity prompted American Medical Association to classify obesity as a disease (Kyle et al., 2016), which justified the need to improve parental nutritional education as another action to help maintain healthy weight among children.

Theoretical Foundation

Theory and Origin

Bandura's (1989) SCT posits behaviors are learned through observation and imitation. According to Bandura, human behavior is the result of interactions between

environment and personal beliefs. Additional evidence of positive nutritional behaviors could serve to reinforce and sustain those behaviors. The concept of self-efficacy in SCT suggests that commitment to personal actions by one individual might bring about a desired positive change in others (Glanz et al., 2015). The SCT, first named social learning theory, grounded this study.

Guided interviews focused on the principles and concepts of self-efficacy helped me to understand parental attitudes and may offer stimulation toward self-awareness for the interviewees. Self-awareness serves to create a sense of empowerment; the hope is that the parent can then influence positive eating and physical lifestyles of their obese child.

Rationale for the Application of Social Cognitive Theory

SCT proved useful in this study because it raised the awareness of parents of obese children about the need to modify their personal behaviors and attitudes regarding food selections that support health and wellness. As role models, parents could effectively guide their children toward healthier eating lifestyles and could make a positive difference in their children's future health outcomes. Positive changes reflected in improved overall nutritional status could help decrease the risk for early chronic disease while lowering the prevalence of childhood obesity. The theoretical framework of SCT supported the interview questions needed to help guide parental thinking toward awareness of the benefit of creating healthier eating practices within their family.

SCT was used to develop interview questions designed to gather an in-depth understanding of the experiences and beliefs held by participants that influenced how

they make decisions in feeding their children. Those selected for the study were parents/caregivers (n=8) with at least one overweight /obese child between ages 3 and 17. The questions stimulated responses that explored parenting styles and feeding habits that guided their children's eating habits. Those selected were residents within the zip code area where the annual household income is less than $25,000 (Baltimore City Department of Planning [BCDP], 2015). The parents were accessed through community services and flyers distributed within the targeted zip codes 21215, 21223, and 21229.

Previous Application of Theory

Knol et al. (2016), conducted a feasibility study using the home environment to test an obesity prevention program that integrated eating strategies to increase healthy food consumption awareness within families. The objectives focused on four behavioral goals known to be related to childhood obesity. Those practices included increased physical exercise, more meals taken with family during the week, applied portion control techniques, and reduced intake of nutrient poor foods, such as sodas, and processed snacks.

SCT constructs were applied in a rural population of parents and grandparents of preschool-age children. Three community-based educational sessions were delivered where pre- and post-intervention data were obtained from 47 mothers and grandparents for analysis. During the study, conscious eating and several key behaviors were observed. Over the three-week interventional period, parents and grandparents were encouraged to follow specific mindful eating/home-based environmental interventions, through the application of the SCT. In this study, there was evidence of positive outcomes among

families when three of the four selected behavioral changes showed improvement between pre- and post-intervention initiatives. For example, sedentary behaviors and intake of "red light" (unhealthy) foods decreased while three of the four eating scores increased through conscious awareness of food choices. The program informed grandparents about healthy and unhealthy foods and the consequences for young children. The grandparents who graduated the program were those willing to commit to removing unhealthy (red light) foods such as concentrated sweets and sugary drinks from their home food inventory. The action helped decrease access to unhealthy snacks and encouraged healthier eating. This study showed successful application of the SCT in a home/community rural setting.

Rolling and Hong (2016) reviewed sixteen studies that focused on noting changes in health behavior and/or physical exercise within children using the SCT. The studies reviewed showed that individual principles of SCT were employed including cognition, behavior, environment, and their effects on BMI measurements. Rolling and Hong's review suggested that the combination of increased consumption of unhealthy foods and decreased physical activity was what has contributed to the global proportions of childhood obesity. The sixteen cases reviewed applied SCT because the framework allowed the opportunity to observe joint interactions of two significant constructs, namely environment and behavior. This would permit the opportunity to observe desired changes in behavior. The Rolling and Hong (2016) study concluded that the SCT was the best choice when researchers needed to measure an individual's ability to participate in beneficial nutritional behaviors with emphasis on the importance of self-efficacy and

self-regulation in changing nutritional lifestyle. The conclusion showed SCT was the theoretical framework needed to show how environmental, cognitive, and behavioral factors interacted to affect children's dietary food choices and to improve their nutritional lifestyles. Rolling and Hong (2016) suggested future research would help control confusion about factors contributing to childhood obesity.

According to Bergmeier et al. (2020), it was crucial to understand the degree of emotional quality in the mother-child relationship and parental feeding behaviors as an indicator for future pathways to eating habits and the risk for obesity. The authors posited that the quality of that relationship can visit all stages of child development but has not yet been extensively examined in relation to childhood weight gain.

Bergmeier (2020) desired to establish a conceptual model, which outlined early mother-child social -interactive pathways linking parental/child relations to the child BMI which might eventually influence the child self-regulating behaviors and eating habits. Both behaviors and eating habits could prove relevant to interdisciplinary approaches focused to prevent childhood obesity. The authors suggested that high quality quantitative observational data capturing meaningful parent/child relations could be influenced by several factors including the parent/child level of interactions surrounding learned eating behaviors, food security, parental mental health and self-discipline, and the temperament of the child. These observations could help identify new targets for preventative intervention.

Mailey et al. (2016) used concepts within the SCT to study barriers to physical exercise among parents which could lead to decreased physical activity. The purpose of

the study was to test a social-cognitive model of parental exercise participation over a twelve-month period. Mothers (n = 226) and fathers (n = 70) of children < 16. The study examined the completed measures of exercise barriers focused on self-efficacy, and perceived barriers. Data gathered reflected exercise planning at baseline and again at one year. The applied panel analyses tested suggested connections related to barrier associations affecting self-efficacy toward exercise . Each was noted as directly and indirectly through perceived barriers and arranged/planning. Prioritization and planning also assisted in measuring the relationship between perceived barriers and exercise. The paths remained significant at 12 months. The results suggested that efforts to increase exercise in parents should focus on improving confidence to overcome exercise barriers, reducing their perceptions

Schwendler et al. (2017), described a pilot study conducted by the Johns Hopkins school of Public Health who applied the SCT in 2015 along with the social ecology and systems theory to guide an intervention to improve social awareness of the benefits of eating healthier. In their project, B'More Healthy Communities for Kids (BKCK) worked at several levels to improve eating experiences in the surrounding community's access to healthier food choices through accessing the community residents and the neighboring corner store. The corner store level intervention for social-modeling involved corner-store-self-efficacy to improve store inventory. The results, showed eating experiences improved from 85% to 112% when interventions increased store-owner owner training, promoted food stocking, and increased in the allocated store incentive. The residential interventions focused on applied self-efficacy, and intentions of healthy eating to engage

residents. The study showed successful application of the SCT in their forerunner study. The school recommended more future trials that would include involving suppliers in planning, keeping wholesalers informed of the financial benefit, and applying a process for program evaluation.

Literature Review of Related Key Variables and/or Concepts

Environmental Challenges

In 2018, a collaborative study by Johns Hopkins Centers for a Livable Future (CLF) and Baltimore Food Policy Initiative (BFPI), titled *Baltimore City's Food Environment: 2018 Report* (Misiaszek, et al., 2018), examined how the food access environment influences Baltimore residents' eating patterns. The CLF and BFPI team studied the nutritional health in low-income communities where residents have limited access to supermarkets' fresh foods inventory. The team applied the HFAI ranging from 0-28.5 to determine the amount and quality of healthy foods a corner store or small grocery offered its customers. The index is based on an a standardized HFAI market basket which includes milk, juices, chicken, seafood, and canned, frozen, or packaged fruits (Díez, J et al, 2016).

Applying HFAI scoring methods, the Misiaszek study found that 94% of the stores provide an unhealthy selection of foods to low-income populations living in HFPAs, formerly "food deserts". Baltimore City's HFPAs scored 9.1 - 9.3 out of 28.5 possible points, a very low score. To further explain Baltimore's situation, the report found that stores available to residents in HPFAs are corner stores or small groceries. More than sixty-five percent (67.2%) of these establishments have five or fewer fresh

fruits and vegetables variety available. Nearly 94% of the food inventory offered consisted of canned fruits and vegetables, and 31% of the items were frozen fruits and vegetables. Conclusively, the CFI and BFPI found that small corner stores and grocery stores have fewer healthy alternatives. Helping parents to understand the vital importance of selecting healthier foods and increasing access to them is essential, therefore. It is anticipated that I my study will increase parental awareness of benefit in accessing healthier food environments.

In 2016, Blake et al. prepared a manuscript following key factors that predispose children to obesity is supported by updated literature search. Using data collected by the World Obesity Federation in 2012, the researchers showed that although the Region of Americas showed highest prevalence, the European-based pediatric groups reached alarming rates. The research team accessed data on children in China during the first two years of life. Their focus was on family-level behavioral interventions through pregnancy and up to 24 months. Blake et al. (2016), suggested that there could be value in beginning the fight against childhood obesity from birth among children at substantial risk, particularly among women with a family tendency toward obesity. This study emphasizes the need to teach basic nutritional education during pregnancy as a means of reducing health risks for expectant mothers for gestational diabetes and the unborn infant for future risk of diabetes.

Social/Economic Demographics

The homes most affected by childhood obesity in Baltimore City food deserts are those earning less than $25,000 annually. A food desert is defined by the USDA as parts

of the country, usually impoverished areas, lack access to fresh fruit, vegetables, and other healthy whole foods. Families living in the food desert share similar demographics.

In Baltimore's impoverished areas, a total of 11.8% of Baltimore's population is unemployed, and 10% of that population is 65 years and older. Forty-three percent of renters and 12% of homeowners have no available vehicle (BCDP, 2018b). Women head 64% of the single-parent households. The nearest food market with inventories of fresh meats, fruits, and vegetables is more than a quarter mile away. Finally, 10% of the population is over 65 years old and unemployed (BCHD, 2018).

In the *2018 Food Environment Report*, Misiaszek et al. (2018) shared the most recent report of a collaborative project of Baltimore Food Policy Initiative (BFPI) and Johns Hopkins' Center for Livable Future (CLF). The report identifies food deserts across the City of Baltimore and identifies demographic groups disproportionately affected by food deserts. Since 2020, in the presence of COVID-19, Baltimore City has increased its response to food inequities for those at risk through the Food Policy and Planning Division (FPPD) (BCDP, 2021). Their collaborative efforts strive to build an equitable and resilient urban food system by addressing environmental, health, and economic disparities in areas living with high food insecurity.

Physical Exercise

Along with healthy nutritional behavior, physical exercise is crucial in developing healthy lifestyles for parents and children. Mothers' perception and health-related behaviors can substantially affect the degree of physical exercise behaviors among overweight/obese children. As such, Sigmund, et al. (2018) suggested increased weekend

activities to help guide the child toward adopting physical exercise behaviors as part of the lifestyle.

Hassink (2017) recognized that medical and behavioral research scientists have been addressing childhood obesity for more than four decades. Hassink (2017) suggested the environmental exposures and the lack of enough active exercise during early years of life affect children's learned eating and feeding patterns. Hassink's review emphasized that obesity prevention among infants and children can benefit from early nutritional planning encompassing the many childcare environments and the variety of persons preparing and providing food for children (p. 2). The plan should include parental resources, vital nutritional information, and public service messaging about obesity prevention. Positive parental behavioral changes can lead to adopting healthier dietary and exercise habits for children starting with the earliest stages of their development.

Education

Baltimore City demographical mapping depicts educational levels and corresponding annual income. About 16% of Baltimore City residents did not have a high school diploma or GED in 2014; however, 30% held a bachelors and graduate or professional degree. This information additionally assisted in ensuring my questions were at a level for participant understanding the components guiding the study. I ensured that questioning is conveyed in a way that they invite honest and in-depth information needed for analysis.

Nutritional Deprivation

Many children living in low-income areas go to school underfed or without a meal for breakfast entirely. This can occur for multiple reasons including parents not having adequate funds, not having time when working long hours, or not having a level of awareness of the importance of feeding their children due to their social lifestyles outside of the home. This type of underfeeding can lead to children eating unhealthy foods to curb hunger with resulting obesity from consuming foods high in sugars in the form of sugary drinks and concentrated sweets, or food high in saturated fat or salt. Adequate nutrition within the living environment is essential to developing healthy bodies in growing children.

The CLF - BFAI study shows the need to examine parental thinking regarding their management of food sources within their families and how foods eaten affect overall health status for their obese children and the entire family. The report showed 23.5%, or 146,000, live in food deserts areas since the 2015 report. Although now, 5000 residents have moved out of food desserts the city is still home to 146,000 Baltimore city resident who remain trapped in food deserts (Misiaszek et al., 2018). According to 2018 Report, children, more than a quarter (28.3%) of Baltimore's children live in a food dessert.

Self-efficacy purports that one can choose and internalize behavior, and proactively develop a plan to support positive behavioral change. Helping parents to develop positive and authoritative feeding practices could lead to sustained positive feeding behaviors according to Vollmer's study (2019). Vollmer's study emphasizes the

importance of self-motivation among parents in developing effective and positive feeding practices.

Children living in low-income families may be eating foods high in calories, but low in nutritional value (CDC, 2019b). In Baltimore City, the 14% childhood obesity rate indicates that more needs to be done to further meet the nutritional needs of the children living in the food desert (BCHD, 2017). Essential nutrients are needed in this environment to sustain healthy bodies. When healthy fruits, vegetables, are lacking and instead are replaced by chronic consumption of sugars, fats, and salts, children become malnourished due to healthy calorie deprivation and run the risk for prematurely developing non-communicable disease- such as diabetes, heart disease and hypertension.

The USDA defines “Food insecurity” to identify homes where ability to acquire nutrient-rich foods is limited or uncertain for a household (2019). The USDA describes and reports on “very low food security,” as meaning one or more people in the household were hungry over the course of the year because adequate food was not available, or they could not afford enough food. Data published annually describes the extent and severity of food deprivation in American households. In a nationally representative survey published in November 2019, Maryland’s SNAP program showed a 2.6% decrease in funds reflecting .4% loss over national percentages (USDA,2019).

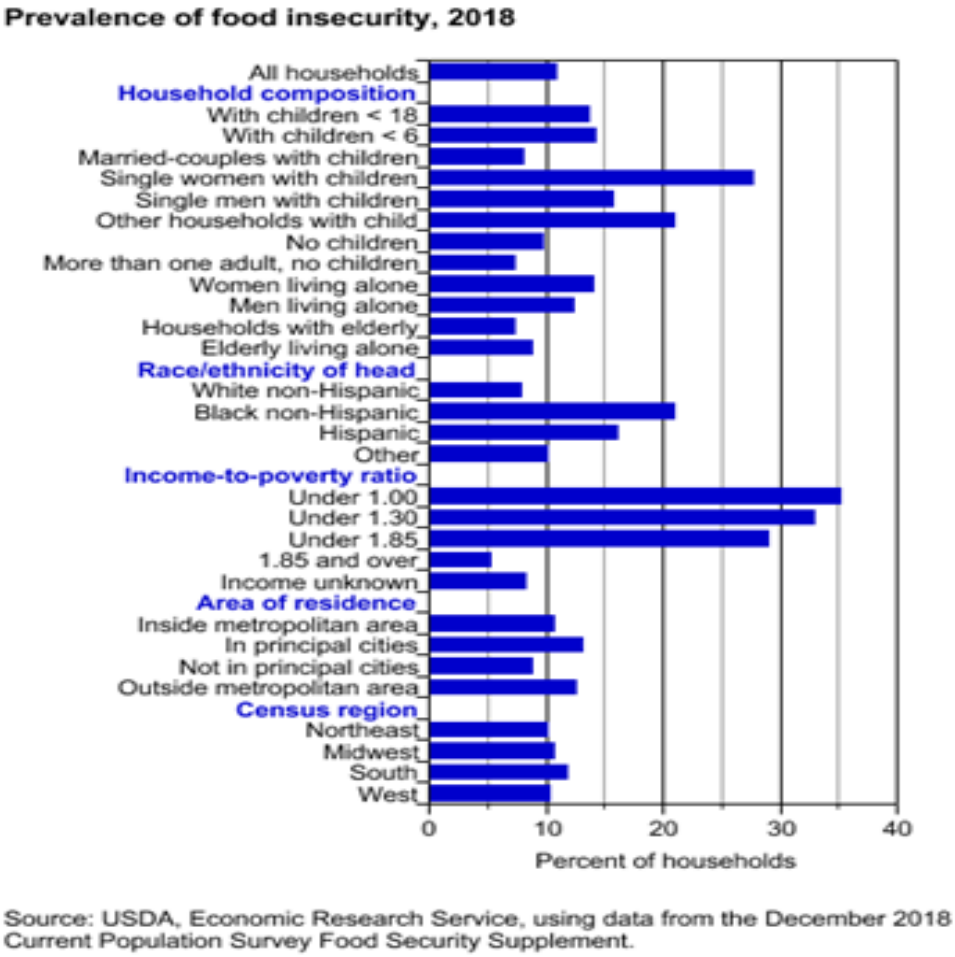
In September 2018, the USDA published that 40.0 million people lived in food-insecure households. Of that number, almost 9.7 million were living in homes with exceptionally low food security. The number of children living in insecure homes were 6.5 million children who lived with food insecure homes along with adults. The USDA

further reported that among 220,000 households with children, one or more child experienced reduced food intake and disrupted eating patterns at some time during the year.

Figure 1, below, describes the ethnic distribution of the food deprived areas in the US in 2018.It depicts the higher percentages were among Black Non-Hispanic (21%), single women with children and households (about 28%), and how they had the lowest income ratio (35%). It demonstrates that the severity of food deprivation is most prevalent among the minority ethnicities putting their children at a greater risk for obesity because of disrupted eating patterns.

Figure 1

Food Hardship



Source: USDA, Economic Research Service, using data from the December 2018 Current Population Survey Food Security Supplement.

Food deprivation is defined by the Food Research and Action Center (Food Research and Action Center [FRAC], 2016). FRAC refers to any respondent who had food hardship. They met the definition if they answered “Yes” to the question “Have there been times in the past twelve months when you did not have enough to buy food that you or your family needed?” To define the extent of food deprivation in Maryland, the project surveyed 1,000 homes almost daily since 2008. The goal was to determine the

number of homes affected in Maryland. Gallup conducted the survey through the Gallup-Healthways Well-Being Index project and provided results to FRAC for analysis. In 2010, the FRAC agency reported that from 2009-2010, 20.8 percent of households with children in Maryland reported they were unable to afford enough food.

Table **1**, below, demonstrates that Baltimore's HFPAs score poorly against the HFAI averages (Misiaszek et al., 2018).

Table 1

Healthy Food Availability Index S*cores in Baltimore, Maryland, 2018*

Type	Number	Average
Supermarkets	N/A	N/A
Small grocery/ corner stores	103	7.5
Convenience stores	6	8.8
Public markets	0	0

Note. *Adapted from Baltimore City's Food Environments: 2018 Report (Misiaszek et al., 2018, p. 17).

The food desert in Baltimore City is fighting the limited access to healthy foods by supporting corner food stores in stocking more health fresh fruits and vegetables for those living with poor access to nutritious foods. Cooksey-Stowers et al. (2017) conducted a study employing an instrumental variable (IV) strategy as a tool to investigate the affect environment played on spreading the obesity epidemic in poor neighborhoods. Data was collected using the sociodemographic, and obesity data from the USDA Food Environment Atlas, The American Community Survey, and Commercial Street Reference database results showed that the Food Swamp Effect was a greater

indicator of obesity rates than the absence of full-service food stores. The Cooksey-Stowers et al. (2017) study suggests that the food desert perspective must consider fast food outlets as an additional health threat to the poor and that government may need to develop creative strategies to balance health equity for the poor.

The efforts in Baltimore City to help correct food inequity starts in infancy with the federally funded WIC program, free breakfast and lunch programs, and other programs initiatives supported by organizations such as Baltimore Hunger Project, Maryland Food Pantries, Maryland Food Bank, and The Family League of Baltimore. These agencies offer food access and other resources for city residents living in the food desert focused to reduce the Baltimore City food insecurity and to reduce health risks for children.

Diabetic Risks

The lack of exercise and consumption of foods lacking nutritional value are primary contributors to the escalation of the childhood obesity (WHO, 2018). Childhood obesity has increased 10-fold, affecting more than 124 million children globally (WHO, 2018). The health consequences of childhood obesity are seen in the associated development of type one diabetes in children (T1DM) – where children from an early age are insulin dependent.

Fang et al. (2019) in their observational study, applied testing agents specific to recognize risks for diabetes included testing specific protein bodies and glucose monitoring. The conclusion posed by researchers suggested that although there was a definitive association between childhood obesity and adult-onset of Type 2 diabetes, the

study determined there was causal association related to an inherited predisposition to obesity that placed obese children with a in inherited risk that continues through adulthood. The study suggested that the increased risk as a child could manifest as an increased risk for coronary artery disease (CAD) and T2D as adults. The authors surmised the concept needed larger-scaled studies showing interventions to validate the association. This study suggested the existence of a strong correlation between obesity in children and their risks for developing Type 2 diabetes as children and adults. This suggests that regular consumption of unhealthy concentrated sweets and sugary drinks can be associated with obese children developing diabetes as school age, adolescent, and/ or adulthood years.

Diabetes increases the risk of coronary heart disease in obese children (Llewellyn et al., 2015) due to vascular changes that can damage not only the heart but the kidneys, eyes, and extremities. This study suggested the existence of a strong correlation between obesity in children and their risks for cardiovascular risks and other comorbidities secondary to diabetes.

Pregnancy among obese and overweight women can create potential health risk for both mother and the unborn child which could present as metabolic disturbances affecting various organ systems. If a mother has a family history or tendency toward metabolic disorders like gestational diabetes, then the unborn child might inherit a similar tendency that may or not be present at birth. However, as the child ages, the combination of these factors can increase the risk for premature development of diabetes and obesity in early childhood and prenatally in women at risk (Trandafir et al., 2020).

Maffeis and Morandi (2017) suggested that a mother's weigh control could help decrease the potential for metabolic disorders like diabetes by controlling prenatal weight gain to 11-20 pounds for obese mothers and for overweight mothers, a limit of 15-25 lbs. These researchers suggest that the chances for developing childhood obesity might be increased in the presence of interactive influences such as family predisposition, negative environmental changes, low economic status, and poor access to healthy food sources. This study suggests that early nutritional education is especially pertinent for expectant mothers having these mentioned challenges.

Cardiovascular Risks in Childhood Obesity

Childhood obesity ranks as one of the most serious public health challenges of the twenty-first century. The global prevalence of this phenomenon has mostly affected low- and moderate-income communities, particularly in inner-city settings. In 2010, the number of overweight children under the age of 5 totaled over 42 million, with 35 million of those residing in developing countries (WHO, 2018).

Children who are overweight or obese experience a significant negative impact on their physical, mental, and behavioral health. These factors can be manifested through physical structural challenges in moving their bodies (Steinberg et al., 2018). Additionally, children who are overweight and obese are likely to remain as such through adolescence and into adulthood. The chronicity associated with the childhood obesity increases the risk of the early development of non-communicable diseases like diabetes and cardiovascular diseases (Sahoo et al., 2015).

Obesity sources are not fully understood, but there is research supporting the concept that childhood obesity can occur through multiple pathways, including environmental, cultural, and lifestyle choices (Sahoo et al., 2015). Llewellyn et al. (2016) conducted a systematic review study using meta-analysis which investigated the extent to which childhood BMI served as a predictor to obesity-related morbidities as an adult. Llewellyn reviewed 37 studies which showed high childhood BMI did correlate with an increased incidence of adult diabetes (OR 1.70; 95% CI 1.30-2.22), coronary heart disease (CHD) (OR 1.20; 95% CI 1.10-1.31). There was notable variety of cancers, but stroke and breast cancer were not found.

Trandafir, et al. (2020) conducted a retrospective study among 160 overweight and obese children and adolescents, ages 6-18 years. The purpose was to determine whether waist circumference in children could serve as a predictor of cardiac complications when seen with internal fat. Patients were evaluated completely using BMI measurements, echocardiography, and diagnostic imagery. Results confirmed that among the adolescents, there was evidence of internal visceral fat. Trandafir highlighted this as a significant predictor for the occurrence of vascular and cardiac injury. As distinguished from adolescents, children showed no visceral obesity. The study suggested that Waist Circumference (WC) above the nineth percentile is a predictive factor for increased left heart dysfunction and increased heart size in both children and adolescents. Trandafir suggested that these children needed consistent monitoring of their health status to help prevent development of cardiac-metabolic disease that could become chronic. However, in a cross-observational study, Vizzuso, et al. (2021) found that children could develop

visceral fat, and this visceral fat was a clear indicator for future development of metabolic syndrome.

Bullying

Bullying is a recognized threat to the general health and well-being of obese and overweight children from a physical/or psychosocial perspective. Children can be the victim, perpetrator, or both (CDC, 2019b). Victimization can affect children well into their adult lives. Bullying is dangerous and affects the physical and psychosocial beings of obese children. In a later study by Lian et al (2018) a school-based, cross-sectional study was conducted in 39 North American and European countries and regions. A total of 213,595 adolescents aged 11, 13, and 15 years were surveyed in 2009/10. Lian et al identified chronic bullying victimization using the Revised Olweus Bully/Victim Questionnaire. Weight status was determined using self-reported height, weight, body self-image, and BMI. Ling et al. tested the associations between underweight and bullying victimization using three-level logistic regression models. Lian et al found that perceived weight and self-rated overweight were related to chronic bullying victimization. They further discovered that children who were overweight or underweight were at risk for chronic bullying.

Financial Implications

The increased prevalence of childhood obesity is seen in the escalating financial burden to the healthcare system. These costs are spent by the healthcare system locally, statewide, and nationwide in the United States. Currently, childhood obesity accounts for about $190.2 billion, or 21% of yearly health care expenditures in the United States.

About $14 billion of that cost is spent directly treating childhood obesity and its complications (CDC, 2019a) in programs operating in out-patient hospital pediatric clinics, private practices of health care providers, and local public health departments,

Implications for Nutritional Education

Baltimore City's Food Environment: 2018 Report (Misiaszek et al., 2018) offers vital information crucial to positive social change. The report revealed the current deficiencies that still need to be addressed for the 146,000 residents in the affected zones. There is a need to enhance parents' basic nutrition knowledge through planned exercises that might be developed through healthcare providers and/or community food bank programs. Corner stores and small grocery stores can be included to improve the effectiveness of community-based programs. Most effective, however, would be programs based on candid and continuous communication between parents, schools, and local public health authorities committed to community health for all residents of HFPAs.

Summary and Conclusions

Childhood obesity is recognized globally as one of the most serious health challenges of the twenty-first century affecting more than 41 million children in 2016 (WHO, 2018). Rates of obesity have quadrupled in the last 30 years among children living in developed countries and affecting more of the low-income populations. Further, it is predicted that by 2025, 70 million children will be obese (WHO, 2020b).

Obese children will likely become obese adults who will suffer early health challenges related to non-communicable diseases like hypertension, diabetes, and skeletal structural changes (CDC, 2019a) Without sustained interventions, obese children, starting

in their early years of life are at risk maturing as obese adults. In the United States, 20.6% of children between ages 12-19 years, and 18.4% among the 2 to 5-year-olds are obese (CDC, 2019a). This places an increased burden on the health care system and community services as the highest rates of obesity are seen in children who live in impoverished/underserved areas.

In Maryland, a disproportionate percentage of obese children live in cities where citizens experience foods deficient in nutritional value and who have annual household incomes below federal poverty. In Baltimore City, where healthy foods are limited, the annual household income is less than $25,000. Eight percent of the children living in low-income families are obese and at risk of developing early chronic illnesses (BCHD, 2017).

My study focused on vulnerable children living in low-income food desert areas in Baltimore, Maryland. The city government and Public Health Department recognize that the challenge remains in obtaining adequate access to healthy food selections for inner-city residents (BCHD 2017). The intent was to approach the issue from a parental perspective to determine how they view their concerns of the nutritional needs of their obese or overweight children. I explored parental roles as they interface with their children's eating habits excellent! The knowledge gained through this study will function to offer affected families increased awareness of the need to improve their family's nutritional awareness through committed changes in how they select foods for their family. Further, it is hoped that future researchers will explore this topic to enhance the literature base.

The current literature offered extensive information describing health disparities related to childhood obesity in low-income areas where access to healthy foods is limited. In February 2014, the *Balti-Market Program*, a suite of programs designed to improve food-access for City citizens living in poverty, operated at three levels. It served elementary school-age children, adolescents, and seniors who were home-bound (BCHD, 2017). The Program addressed issues related to living in poor communities facing environmental, medical, academic, and psycho/social stressors for parents and their obese children. However, the current literature does not show a full level of understanding of the lives, experiences, thoughts, or perspectives of parents living with an obese child and facing challenges related to poor access to nutritional foods. My study focused efforts were to help close the research gap needed to understand parental attitudes, thoughts, nutritional and health literacies. These factors collectively impacted the overall level of awareness by parents of the health benefits and risks for their children based on what they eat. Chapter 3 will offer the process and design method for this study.

Chapter 3

Introduction

Obesity among children is a global health epidemic that impacts all levels of society. In the United States, the threat affects more than 13.5 million children, a number that has tripled over the past three decades (CDC, 2018). The purpose of this qualitative study was to acquire an in-depth understanding of the lived experiences of the parents of obese children to gain insight into their attitudes, perceptions, thoughts, and actions that describe their responses to the challenges they face in feeding their children. This study examined the feeding habits of low-income parents with limited access to nutritional foods for their families in Baltimore City. In the affected areas in Baltimore City, 10% of the children are obese (BCHD, 2017). The insight gained through this study generated innovative approaches that can effectively help prevent and reduce childhood obesity.

Chapter 3 details the rationale for the qualitative research design. It includes the research questions that directed this inquiry. Defining the specific role of the researcher in a qualitative study is crucial to ensuring the study is valid and trustworthy; it is a statement of credibility. This includes details on my strategies to manage researcher biases. In Chapter 3 I also discuss sample size, purposeful sampling, inclusion criteria, and ethical and legal issues as mandated by the Walden University Institutional Review Board (IRB).

Research Design and Rationale

I used a basic qualitative design with constructs of the SCT for this study. The SCT was an appropriate theory to use because it allows participants to express their

thoughts while supporting the idea of possible behavioral change to address the phenomenon being studied. The design and approach are appropriate when studying a small population sampling. The small sample size becomes relevant because a well-designed study using a purposive sample or participants with common background experiences can be powerful. Therefore, a large sample size was unnecessary to understand and appreciate experiences of the group members associated with a specific problem.

The goal in studying the factors related to childhood obesity through the lens of parents or caregivers was to gain a valid reflection of how parents view their everyday lives in meeting the daily challenge to feed their children. The literature search helped me develop the research questions for this study. I identified the gap in literature regarding the need to better understand what parental environmental influences determine a child's dietary habits and lifestyle. The research was justified by the need to gain a deeper understanding of parents' thoughts and actions that guide their decisions in feeding their children.

The SCT (Bandura, 1989) has been described as an appropriate tool for use when desiring to encourage behavioral change. This theory has proven effective in developing positive changes in behaviors (Knol et al., 2016). The SCT shows how a person may adopt positive behavioral changes by observing and adopting the thoughts and actions of others. In this study, behaviors reflected cultural, social, and educational influences. I anticipated that parents would embrace a concept of self-awareness by reflecting on and

committing to positive change. Their increased awareness could support healthier nutritional lifestyle patterns and promote healthy outcomes for their children.

To address the health threat that obesity among children poses, the constructs and framework of the SCT informed my research questions and study methodology. The questions guided my gathering of pertinent information from parents of obese children that contributed to improved understanding their lived experiences.

The research questions developed for this study were as follows:

RQ1: What factors impact parental decisions in food choices among obese and overweight children?

RQ2: What is the level of understanding held by low-income parents/caregivers as it relates to basic nutritional knowledge?

Role of the Researcher

I served as study coordinator and was available to listen to participants throughout the study. Any biases that might have occurred related to supervisory or instructorship were addressed with participants by reminding them that they could answer only what they voluntarily wished to answer and that their information would be held strictly confidential throughout and after the study.

Through a responsive interviewing approach, selected participants were encouraged to freely express their views regarding their experiences. Recruitment was made through support from The New Solid Rock Fellowship Church, the Park Heights Merchants Association, and by community flyer distribution.

A request for cooperation in this study focused to identify candidates as potential participants. The purpose of the study and related details were explained to participants prior to the interviews. This included the principles of informed consent, the interview process, and their risks and benefits. I identified no known biases, and I had no history of prior relationships resembling supervisory or instructive relationships with participants.

As part of educating the potential participant about the study, they were told during an initial phone call how data would be collected and stored based upon the IRB approval. Through a responsive interviewing approach, selected participants were encouraged to freely express their views regarding their experiences

Participants were informed of their rights before, during, and after the study was completed as directed by the Walden University IRB. The participants were informed of how their information would be handled after the study was completed. Information was shared regarding a $25.00 electronic gift card to be given as a token of appreciation for those completing their interview process.

Methodology

Participant Recruitment

All study procedures were approved by the institutional review board at Walden University # (0410210). I contacted a sample of eight parents across all racial groups living in the chosen Baltimore City low-income food desert zone. The cooperating associations received approved flyers for circulation among parents visiting their facilities or through the organization mentioning the study to other community leaders during meetings. I used phone calls and emails to contact willing candidates to ensure the

screening criteria were met. The parent or caregiver was between the age of 18-50 and was parenting at least one overweight or obese child. During the selection process, I interviewed parents who were able to read and understand English and who were willing to share information regarding their household. The study criteria for income were based on the demographic location. Recruitment occurred through referrals for the chosen community affiliates located in the 21215, 21223, and 21229 Zip Code areas. Originally, I sought 10 participants, but the sampling size was held at eight because interviewees consistently gave the same or similar responses to key questions. To ensure key questions were addressed thoroughly in this study, I conducted thoughtful questioning and sensitive debriefing. This ensured the integrity of the data collected from each participant (see Powell and Brubacher, 2020). Chosen participants were representative of a community of about 24,000 residents of which 14% of the children were obese. The brief introduction to the study explained the study's purpose and the desire to explore parents' individual experiences, feelings, and strategies related to meeting the dietary needs of their overweight or obese child. Parents were informed that the goal was to learn how their experiences might lead to health benefits for their families All legal and ethical considerations were discussed with candidates and adhered to as mandated by Walden University IRB.

Research Tools or Research Instruments

Interview Protocol

The interview questions for this study were developed based on constructs selected from the SCT that support the self-awareness needed for positive change. Powell

and Brubacher (2020) offered suggestions for developing a semi structured interview guide with open-ended questions that would answer the research questions. Appropriate interviewing questions permitted movement from easier to more difficult questions for a more in-depth conversation between researcher and participant. A script developed through a mock interview with a public-school official specializing in nutrition guided my interview questions. The official listened and made suggestions based on the focus of my study. Further, I appreciated the expertise of my research team chair and member for their review and revisions of my questions to ensure the appropriateness for my prospective population of participants.

Strategies for Recruitment, Participation, and Data Collection

Recruitment

Participant recruitment occurred through referrals from cooperating organizations within the targeted zip codes. Once any referral was received, the phone call from the researcher introduced the purpose of the study, process for the conducted interview, determined the level of interest by candidate, and established eligibility to participate. The initial contact was instrumental in establishing a relationship that led to smooth transition from candidate to the participant orientation to the study and signing of the required consent. The interview process allowed collection of essential robust data that answered the focused research questions.

Another form of recruitment occurred through brochures and flyers that offered general information to stimulate interest along with the researcher's contact information. Informational flyers were available at participating sites within the targeted community.

Data Collection Method

Primary

Baltimore City selected zip codes 21215,21223, and 21229 were area location for the conducted study. The interview consisted of semi-structured open-ended questions administered over a 40-55-minute period by telephone using an audio recording device. Parents were reminded of how to access the researcher if they had further questions or concerns about the study. Secure storage of data using unique identifiers such as initials was implemented to ensure participant confidentiality. Interviews were conducted in a timely manner to minimize loss of participants and to capture the best time to ensure interviewee comfort during interview. This supported creating an environment that encouraged best data sharing and greater ease for the collection process by researcher.

Interviews

The interview process can occur between two individuals where a series of questions are brought into conversation in a way that encourages the interviewee to share vital and personal information which will provide the rich data sought. those answers designed research questions (Powell & Brubacher, 2020). One of the several ways this data can be collected in qualitative interviewing includes one-on-one interviews, using semi-structured interview questions. As part of that process, selected interviewees having specific experiences and knowledge agree to willingly offer honest information to answer defined research questions.

In lieu of a pilot study, this researcher successfully gained the opportunity to conduct a mock interview with a nutritional expert who retired from the Baltimore City

School system as a teacher in nutrition and home economics. After retirement, she spearheaded a nutritional program designed to bring nutritious meals to children living in within or around zone 21217, one of the targeted food-deprived areas identified in Baltimore City. The purpose of the study was previously explained to the expert during two prior phones discussions. We decided to meet on a Saturday afternoon at my home to discuss possible access to potential candidates. It was decided that several outreaches might yield the willing participants for my study. Our discussion ended with her suggesting that she would answer my proposed research questions with the understanding that she should stop me when/where she thought the researcher should expand or modify my questions based on her experiences with the parents of the children in her program.

The interview with my retired nutritional educator began with the introduction that would be offered to an actual participant. The initial place the consultant stopped me was at the question that asked about the frequency of daily fruit serving for children. The model -expert participant commented that she had seen multiple cases where children got no fruit servings at all during the day. She expanded that by adding that some children recognized fruits by a picture but had never tasted the fruit identified. She believed that expanding this area would alert parents to the health benefit of fresh fruits could create a flow of such knowledge to their children. We thought it important to find ways to identify the barriers parents might have in accessing the fresh fruits and vegetables for their children. Further discussion made led to her suggestion to include questions to address the frequency of family meals during the week. She added that many of her parents were single who worked late and were not available to sit down for an evening meal with their

child. She thought exploring both areas would give me valuable insight into the views of the parents in describing what they experienced and would serve to answer my research questions. I earnestly thanked her as we ended the visit with a decision to speak again should I find a need. I found value in hearing myself practice my interview approach while permitting the expert/participant to interrupt, rephrase, or expand my thoughts and approach to gain maximum information. Secondly, I was able to practice ways to expand the more tough questions that parents would need to answer. I was grateful for that experience with the expert who took time to assist me.

For my study, the candidates chosen were eight participants for entirely telephonic interviews because the COVID -19 Pandemic prohibited face-to-face interviews. The approach, following a brief introduction, was followed by a few easy to answer questions before progressing to more personal and harder to answer questions. The hard to answer question. as expected, delivered richer, robust data that served to describe participants deepest thoughts as it related to their experiences. Interviews were conducted in a manner that created a bond between researcher and participant which made it easy for return calls if needed for clarification of data or if the participant wished to speak with researcher. The interview exit allowed time for debriefing to ensure the participant was comfortable with answers and maintained a level of comfort upon ending the session. This could help create means for future conversations if needed (Powell & Brubacher, 2020).

High quality interviewing requires a topic guide and staying to the time allocated to conduct the interview. However, it is equally important to allow time for some answers

to be expanded to acquire more in-depth information. Additionally, the researcher must have access to functional equipment that will allow quality audio recording to ensure the desired information is captured and reflects true meaning of what participants say (Powell & Brubacher, 2020).

Participants initially contacted by phone or email served to introduce researcher as a doctoral student at Walden University who would be conducting telephonic recorded interviews based upon participant accessibility for in a comfortable private setting. I introduced my study and the reason it was being conducted. I proceeded to describe the kind of information that would be collected over a 40–55-minute period. A taped interview was requested. It was explained that a taped interview would offer assurance that the data collected would precisely reflect exactly what was shared with me during interview. I advised participants of the token of appreciation in the form of $25.00 to be issued electronically when the interview was completed. I invited each participant to suggest the best time and day for the interview.

Each participant was reminded of the purpose of the study and the importance of his/her contribution to the study. They were given another quick overview of collection process, their rights to withdraw from the study, their right to not answer questions, and the potential health benefits for their family. On the day of the interview, the research offered words of sincere thanks and comments to foster a level of comfort that would encourage researcher-participant bonding, Additionally, the attention given to the participant in the few minutes prior to starting the interview, set the stage for more honest, in-depth answers to the interview designed to answer the research questions.

Throughout the interview process, the participant was given my respect and undivided, attention. The interview ended with offered gratitude and asking if there were questions needing to be answered before closing the interview. Additionally, closure of the interview included a brief assessment by the researcher to ensure each participant had a sustained level of mental comfort. This action further served to enhance the likelihood of participant willingness to respond to the researcher if event data clarification was needed. At the closing of the interview, each participant was awarded the $25.00 e-gift card.

Member Checking

Part of the analysis process involved *member check* where participants reviewed their information to ensure accuracy in what was recorded and transcribed and that no changes to their answers was needed. This helped to validate the reliability of data recorded and that the data reflected what participants intended to say (Powell & Brubacher, 2020). Triangulation of data is not appropriate for this study and will not occur. However, peer-review through my research team -Chair and member occurred. Data saturation was considered as complete when the same answers occurred among most participants allowing the study to be completed among eight participant interviews instead of the projected ten. This was made evident as novel theories emerged through this study.

Follow-Up Plan for Too Few Participants

In this basic qualitative study, too few participants were not a factor in this study. It was known that various collaborating community services interacted with potential

candidates living in my targeted community. Fortunately, acceptable numbers responded to invitation which allowed the selection of candidates to successfully proceed.

Exiting Process Debriefing and Follow-Up Interviews

In qualitative research, the data collector's expertise can define the quality of the data collected. Being able to recognize strengths and weaknesses in the data collection process permits researchers the opportunity to dually improve collection of data and its ultimate use. Plans for thorough systematic goal-oriented discussion and debriefing plans immediately after data collection offered an enhanced opportunity to gather high quality data and the time to see the most appropriate use. Debriefings can take different forms and serve to enhance researcher/participant relationship that supports the study as data collection progresses (Powell & Brubacher, 2020).

In this study, following each successful interview, participants were thanked for participating and then informed of the remaining process related to the study, including the e-gift issued at completion of the interview. Information shared with each participant included how data would be stored confidentially, sorted, and checked to ensure data correctly reflected their responses. They were reminded of the opportunity to review what they contributed. They were told of the expected health benefits brought about through eating healthier foods. Over time, healthier nutritional lifestyle can reduce the chance for exposure to non-communicable chronic illnesses for the entire family. Participants were reminded that this public health project could serve as a positive example for social change that could benefit their family. Information was shared describing how their information might be disseminated and what would happen to the data after the study was

completed. The researcher ensured participants had contact information to reach the researcher on the event there were further questions or concerns related to the study.

Data Analysis Plan

Data collected corresponded to each research question and grouped accordingly. The data collected to address related concepts was grouped accordingly to describe and reflect the interpretation of the parents' perspectives regarding their food access, choices, and nutritional decisions in feeding their overweight or obese child. The data sought to provide an in-depth description of how participants describe their level of awareness as it related to their value on healthy eating. The data collected sought to understand how parents viewed and responded to their child being obese. Data grouping revealed how well parents embrace the concept of self-awareness, self-efficacy, and willingness to make positive changes within their family to protect the health of their children and family against the perils of obesity.

A matrix for coding was created to show the process of larger grouping to smaller grouping, based on the number and frequency of similar responses to the interview questions. In the end, when answers were re-grouped, the most outstanding data related to research questions were summarized for analysis and rechecked for researcher reflexivity, biases, trustworthiness and validity by member check and peer review before final manual analysis. As patterns developed through coding, the added information identified showed the impact of parental experiences on the food environment of obese children and how they respond to it. Information shared by parents of obese children revealed a generated sense of self -awareness regarding the importance of health foods

within the family environment and generated a commitment to create behavioral patterns that serve as positive models of change to guide their children toward healthier food choices and eating habits.

Trustworthiness Issues

The trustworthiness of qualitative content analysis is often described by using terms such as dependability, credibility, conformability, authenticity, and transferability (McMahon & Winch, 2018). The planned validation of data check processes should provide other researchers unquestionable doubt regarding the trustworthiness of my study. McMahon and Winch suggested the value of a checklist for use by researchers focused to improve the trustworthiness in analyzing content. Offering concise and clear data that is easily understood by other scientists and reviewers increases trustworthiness by decreasing the chances for problematic and defective data collection method used for analysis. As such, this requires that researchers create steps to ensure reliability and credibility of data collected. Proving credibility of findings and data is the core of quality research (McMahon & Winch, 2018). An important condition to ensuring successful analysis of data is to reduce data to the extent that there is reflection upon the concepts used to describe the research problem (McMahon & Winch, 2018; Powell & Brubacher, 2020).

In my study, peer review was valued as another attempt to clarify and confirm understanding of data. This method of assistance in data checks ensured factual data was collected. This method additionally served to assist in identifying signs of researcher biases.

A journal showing dates for data collection and conversations was kept noting any communication with researcher made throughout the interviewing and data collection process. Systematic, continued member checks with participants ensured accurate description of data collected from participants. Repeated review of taped recordings and transcriptions further ensured accuracy in collection and transcription of data collected. That process helped facilitate narrowing in grouping of data when similar comments were consistently appearing in participant comments (McMahon & Winch, 2018; Powell & Brubacher, 2020). Adequate debriefing was essential to ensure the interviewee is comfortable and without harm at the end of the interview session (McMahon & Winch, 2018).

Ethical Procedures

Ethics, as defined by most societies, refers to professional behaviors expected by individual scientists handling sensitive data or procedures associated with studies involving human subjects. However, ethical norms as practiced today, tends to cover a broader spectrum and over laws and can vary in formality. Resnick suggested (as cited by NIH, 2016) that ethical norms define the goals of research and require specialized planning by professionals conducting scholarly activities.

Agencies such as the WHO and the National Institute of Health (NIH), produce guidelines honored by universities of medicine, and behavioral/ social sciences. Those guidelines specifically address legal and ethical methods to protect participants in studies (WHO, 2020a). In preparation for my research, I studied and received a certificate of completion from the NIH program as required by Walden University IRB research.

Those selected as suitable candidates, based upon my research protocol were informed regarding the study which included informed risks and benefits. They were provided with the approved Walden University IRB informed consent form. It offered the invitation as a participant, explained the purpose, and introduced me as the researcher. The form outlined how they would participate and their rights throughout the study. The language chosen was appropriate to the population studied based on a sixth grade reading level. Each participant was given the opportunity to ask question as part of verifying their understanding of the study and of the informed consent. Based on that information, they could decide if they chose to move forward. The token of appreciation was explained and how they would qualify through participation in the study. The participants were asked if they understood the process related to the proposed study including the way information would be collected, the length of the study, and how their identity would be protected throughout and after the study. The data collection process was explained and included how information will be compiled and stored. Each participant was informed of how the study results may be disseminated.

They were further informed that personal identifiers would be redacted to protect their personal identity and that the information will be destroyed after study is completed. This study met the legal and ethical research committee guidelines by submitting a request to the IRB explaining the methodology to be implemented that will not create any harm to participants. The small token of $25.00 represented a token of appreciation for participating in the study. As it related to researcher biases, self-reflection throughout the

study was planned as an effective means to ensure I had reduced or removed my biases as it related to my study.

Summary

The research method designed for this basic qualitative research study explored the lived experiences of parents to determine if and how their thoughts and actions impact the nutritional habits adopted by their obese child/children. Access to the group of interest provided the opportunity to gain valuable information from parents to reveal what guided their daily nutritional decisions in meeting the need to feed their obese child.

Validation of the questions chosen for interview was a group decision based on review by my chair and member. This study occurred through submitting them to the Walden University IRB for review to ensure the questions were ethically appropriate for understanding by participants and that they supported the goal in the collection of robust data for my study.

Based on this knowledge, participant inclusions and exclusions criteria were clearly outlined in the study.

Data proven valid by the internal trustworthiness processes for final review was submitted for final analysis and completed using a group coding process. When data collection was completed, emerged themes were elucidated in Chapter 4 to answer the research questions and provided insight into what was gained in understanding how the lived experiences of parents' guide the eating behaviors of their obese children.

Chapter 4

Introduction

In Chapter 4, I describe the results of the interviews conducted individually regarding eight parent/caregivers' experiences in meeting the nutritional needs of their overweight or obese child.

I sought the in-depth experiences of parents living in Baltimore City areas where healthy food access is a challenge. This can make the daily task of food preparation and meal selections for their children- who might be overweight or obese a struggle. Another aspect of this study explored the level of basic nutritional knowledge of the parents/caregivers and their views on connecting illness to dietary intake.

Questions used during interviews were open-ended and designed to elicit free expression of views and thoughts on the lived experiences of study participants. These questions were driven by the research questions:

RQ1: What are the lived experiences of parents/caregivers who are raising overweight and obese children?

RQ2: What is the level of understanding held by low-income parents as it relates to basic nutritional knowledge?

Research Setting

Due to the current COVID-19 pandemic, interviews were conducted by telephone, audio recorded, and later transcribed into a secure Word document. The appointments were arranged following receipt of the participant's email with the signed informed consent form reading "I wish to participate" attached. After I received the informed

consent was returned, I called the participant to review the interview process and to secure a time for the interview. The appointment dates spanned from November 24, 2020, to March 20, 2021.

During interviews, none of participants demonstrated signs of distress requiring intervention or referral to the family counseling and support center I had previously contacted to provide support if needed. One participant spoke emotionally sharing her feelings that she was initially less than satisfied with her support of her daughter's goal for weight reduction. She followed that with expressed determination to work closer with her child and her health care provider. She shared plans to start saving toward the purchase of two stationary bikes so they could ride together inside the home. The parent shared she had a personal problem with overeating and being overweight.

Demographics

The eight participants were all residents of the Baltimore City HFPIs. Participants lived in Zip Codes 21229, 21215, 21223, or 21227.

All eight parents/caregivers were single, and one was widowed. They each reported raising their child either alone or in a shared care arrangement. All had care of at least one child. Of those eight, six had children currently experiencing weight management concerns. Of those interviewed, six were employed, one was in school, and one self-employed. The following table displays the varied educational levels of participants.

Table 2

Demographics of Participants

Participants	Age	Education	Employment status	Marital	Zip Code	Number of children
1	30	AA degree	Convenience store	Single	21215	2
2	29	BS	Criminal justice	Single	21229	2
3	29	Some college	Unemployed	Single	21229	2
4	34	Some college	Healthcare	Single	21227	1
5	40	High school graduate	Truck driver	Single	21215	2
6	39	Tenth grade	Self-employed	S/widowed	21223	4
7	37	BS	Healthcare	Single	21229	2
8	45	2-year college	Unemployed	Single	21229	2

Data Collection

This interview protocol consisting of 21 questions was approved by Walden University IRB. The questions were designed to reveal answers to the research questions by exploring the deepest thoughts from the participants' experiences in managing the nutritional needs for their family, particularly those children known to be overweight or obese as reported by their health care providers.

Primary data collected from participants was through telephonic interviews using open-ended questions. The interview sessions lasted from 45-60 minutes. The participants were comfortable and forthcoming in giving answers to each question, - particularly those that were expanded to elicit more in-depth information.

Validity of the information for this study was obtained thorough a comprehensive review of responses offered with each individual participant. Before terminating each

interview, I reviewed responses made by each participant to ensure they reflected a true perspective of their nutritional experiences. One call-back became necessary to Participant 5 when the recorded play-back had sections that were not discernable on tape. One audio session with P1 was lost but not before the entire conversation was transcribed into the Word document.

All data collected and recorded was repeatedly reviewed and reread several times for each participant and then transcribed verbatim and saved electronically. Earlier, when electronic sources for data collection and analysis was considered, NVivo software was explored. However, not only did it present challenges with entering and sorting data. it proved to not be clear how to sort data. As a result, I decided to perform manual transcription of data as described.

Data Analysis

I transcribed the interviews verbatim using Word and saved the documents to my HP computer. The initial steps of reading and reviewing each interview while comparing it to the audio ensured accuracy of the transcript. The initial coding involved reading and rereading the data to create grouped segments that later offered grouping based on thematic identification. Further analysis occurred through comparing that grouped data and more closely critiquing it to explore thematic patterns based on the patterns seen in participants' responses.

Coding is a process that permits combining data into groups for analysis to best retrieve primary ideas that support identification of key factors or themes (Saldana, 2016). A code represents a word or phrases that reveals meaning of a specific data topic.

As such, it is important that these steps are performed carefully and thoroughly. My approach involved reading responses word for word, each sentence line-by-line, page-by-page, and finally the entire document. This type of coding is referred to as *dialogue* (Boone, 2000, as cited in Saldana, 2016) as a type of *verbal exchange coding*. This approach proved appropriate for this study because it permitted explorative dialogue between researcher and participants, which led to understanding cultural habits of participants that guided their parental dietary decisions. This approach illuminated the effect familial cultural practices had upon the parental nutritional behaviors and practices subsequently revealed through this study. Verbal exchange coding is suitable for a variety of human communication studies, particularly when the researcher desires to explore the cultural aspects that become discoverable through interviewer/interviewee interactions (Saldana, 2016). In this study, it was applied in both initial and second-cycle coding.

No use of discrepant cases was identified in the analysis. Color coded notes along with highlighted text to specifically quote some phrases helped identify specific themes emerging as the data was carefully reviewed. The remarks were highlighted that offered the most in-depth response to a specific question.

Evidence of Trustworthiness

It is essential that researchers create defined steps to ensure reliability and credibility of data collected in any qualitative research (Theofanidis & Fountouki, 2019). An important condition ensuring successful analysis of data collected can be accomplished to the extent that there is reflection upon the concepts used to describe the

research problem (McMahon & Winch, 2018; Powell & Brubacher, 2020). These crucial steps further permit the smooth flow of the data collection process.

Participants were interviewed by phone following a prearranged time for interviewing. I requested that participants plan a scheduled time that would support a quiet interview without interruptions. In one case, the participant had to be requested to move to a quieter area to decrease background voices from children playing. Evidence of trustworthiness was ensured through credibility, transferability, dependability, and confirmability of data collected. I prefaced the interview with an introduction in which explained who I am and the reason for the interview. Each participant was given another opportunity to ask for further explanation or express any concerns or reservations before proceeding. The consent form was then emailed to each participant and signature obtained electronically. After reading the informed consent, a typed response from participant reading "I am willing to participate" was returned to me by reply email. Each participant was reminded to save and print the email serving as their signed consent. Following this process, the interview was conducted.

Credibility

Data credibility was executed as was mentioned in Chapter 3. It was collected and verified through verbal communication and cross-checking written notes obtained during audio-recorded interviews. Following this process, final transcription was created. This data-check served to ensure that the data collected reflected sincere thoughts of each participant as shared with researcher. Reflective writing approach was applied in this

analysis. This helped to maintain objectivity during analysis which is pertinent toward keeping the analysis void of my personal biases.

Transferability

The detailed demographics describing participants in this nutritional study could support replication within communities having similar cultural, social, and food deficit concerns. The data collected using the twenty-one open-ended interview questions could be utilized in any similar study focused to gain insight into the lived experiences of parents/caregivers. The questions encourage essential data collection that yields the thoughts of parents meeting daily dietary needs of their family. Information collected was planned through private 45–60-minute phone interviews and proved effective in yielding essential information being sought.

Dependability

Microsoft Word was used to transcribe interviews verbatim. Each transcribed interview was reviewed with participant to ensure that the information obtained was exactly reflective of what they said. Participants were encouraged and allowed to ask questions before and after the interview. When necessary, clarification was made with participant to ensure mutual understanding about what was being said by participant. Specific labeling and replay of each transcribed interview ensured the avoidance of incorrectly mixing data of participants. Data review line -by- line helped to further ensure that data collected reflected the actual ideas that emerged from interviews with each separate participant.

Confirmability

The approach to ensure confirmability included a brief description of each participant who provided information for all questions asked. The audio portion of the interview was transcribed within 48 hours and collaborated with any notes made during the interview. Further assurance of confirmability was obtained by the repeated reading of each transcript to ensure that any ideas that emerged were those of each participant.

Study Results

The research questions were completely addressed through the data collection process of the eight participants. Sub questions asked provided answers that further support the research questions. Results of this study offered collated responses from the eight participants who answered 21 open-ended questions. From this process, eight different themes were recognized through the layered and differentiated coding process.

RQ1: What are the lived experiences of parents/caregivers who are raising overweight and obese children?

RQ2: What is the level of understanding held by low-income parents as it relates to basic nutritional knowledge?

Eight Themes emerged related to these questions. Those identified include:

1. Distance and food shopping
2. Value placed on available food selections
3. Work Schedule limitations to Fruits and vegetables
4. Cultural influences- structuring feeding patterns
5. Meeting the challenge in structure

6. Importance of portion control
7. After school snacking
8. Adaptability

Table 3
Specific Coding and Themes

Theme	Description
Distance and food shopping	Market more than a mile away accessed by hired ride or family vehicle
Available food selections	Financial resources determined when, where, and what foods to buy
Work schedule limitations	Market success-expressed frustrations over inability to get to market early to capture best fruits and vegetables
Cultural influences	Structuring feeding patterns: Prior generational teaching guiding how and type foods served
Daily menus	Challenges related to resources and timetable
Portion limitations	All cases -parental leniency allowing child to eat as desired
After school snacking	All cases: Children allowed to choose after school snacks
Adaptive resilience in meeting dietary challenges	All cases-Parental persistent to improve family mealtime, partnering with child for weight management program

Theme 1: Distance and Food Access

Although distance proved to be an issue in all eight cases, each case shared that they rely upon hired vehicle assistance or their own vehicle to shop at the supermarkets more than a mile away, Seven of eight cases shared their primary issues relate to work,

school, or regular medical treatment during week. Such obligations interfere with getting to the market for fresh fruits and vegetables before they were picked over or before the "fruits and vegetables sections were closed altogether." All eight participants lacked a nearby supermarket located within a mile resulting in the need for vehicular travel to supermarkets by hired vehicles or a family car. Specific concerns related to work were offered by participants 6, 7, and 8.

Theme 2: Resource Availability

Four of eight participants receive food assistance through government programs. Limited resources proved to be a concern for Participants 3, 4, 5, and 6. Each receive some type of government assistance which permits food purchases until funds were exhausted. They shared food choices during shopping is determined by the amount of money or amount of government resources available to shop for meals including fresh fruits and vegetables.

Participant 5 shared that the type of food selections was based specifically on money. When money was available, better selections were made. When funds were limited, the dollar store proved to be the best resource to feed three children through purchasing microwavable meals. He elaborated in stating, "You know, you can get three meals for $3.00? That's not a bad deal". He added that when funds are limited, he purchases canned fruits and vegetables instead of fresh fruits and vegetables from the distant supermarket where he shops at times.

Participant 6 shared that she makes food selections for the family based upon what her mother tells her to buy. These selections include meats and fruits and vegetables

Participant 6 revealed she is getting “a lot of free fresh fruits and vegetables through the COVID economic relief program, but I’m not sure how affordable they will be if and when that program is over.”

In interview with Participant 7, who is raising a toddler and a teen, the government contribution for the toddler is “just not quite enough,” but does not impact her ability to get fresh foods as much her irregular work hours. This poses a particular problem when she has to food shop for her teen who is in a weight management program ordered by with her health care provider. This has become a greater issue because the teen is at home in virtual learning because of COVID-19 and has too many opportunities to snack during the day since being at home. Participant 7 and her teen have agreed to work through these issues to encourage the teen’s focus on and type foods she is eating during the day or even at late night snacking. Participant 7 shares that the teen stays up later now since she does not have to get up early to physically go to school. As such, she sometimes eats popcorn late at night when she would ordinarily be in bed. Participant 7 stated, “I feel like I need to be a little more proactive because ultimately, her health matters to me and I want her to be as healthy as possible.”

Theme 3: Work Schedule and Access to Fruits and Vegetables

Three parent/caregivers (P4, P7, P8) verbalize issues related to inadequate time to buy fresh fruits and vegetables or meats because of their evening and night work- shifts. The rotating shifts prohibit timely arrival to supermarkets before the better fruits and vegetables were sold. Participant 7 shared that sometimes the vegetable and fruit section was “closed “when she got off or the selections were not fresh, and she opted “not to buy

anything". Two other participants shared that evening and night work hours often limited the ability to regularly plan trips to the supermarket. Prior to COVID -19, quick fast foods sometimes substituted family meals at home (P6).

Theme 4. Cultural Influences structuring feeding patterns

Some participants verbalized situations impacting food selections based upon their family customs. Participant 3 shared that food selections were made based upon what her mother normally bought which usually did not include fresh fruit purchasing. Her attitude toward food purchases was verbalized distinctly when she stated, "I buy what I am use of buying. That's how I was raised".

Participants 3 and 6 felt that food shopping and meals were more related to accustomed conversations they have with their mothers. Participant six said her mother, being a diabetic, influenced what and how she feeds her four children. P-6 further offered that she was not as strict as she should be with one son who loves to drink grape sodas and who was overweight as early as 2 years old. She complied with her son's doctor orders by feeding him less chicken and grape sodas. She shared he did improve with eating less chicken, but grape soda restrictions are still a problem for her.

In interviewing Participant 3, it was shared those fresh fruits were not commonly served and that the children might get one fruit serving a week. When asked for elaboration, the comment added was "I just don't buy them. That's the way I was raised".

Theme 5: Daily Menu Structure

In reviewing *Breakfast* servings*:* For breakfast, each participant shared their planned breakfasts which in 7 of 8 cases included eggs, sausages/bacon, or cereals.

Participant 2 commented that she served applesauce in the morning but verbalized her frustrations in not being able to serve breakfast daily. She stated, “Sometimes I work night shift. When I come home from work in the morning, I just go straight to bed”.

Participant 7 said her older teenage child often skipped breakfast if she was going to class as opposed to being home for virtual studies. At such, the teen often opts to skip breakfast and start the day with lunch at school. This fluctuating schedule in eating habits posed a challenge to the mom who is trying to help her obese teen commit to an eating structure that fosters consistency toward maintaining healthier eating habits. Participants 3, 7, and 8 shared that eating breakfast at home with their children was limited by their rotating shift schedules and was something they want to experience more often. Participant 3 is even seeking a job where she can be home more often with her two children for a daily breakfast. Sometimes her work shift of 630a-230pm interferes with what she can and cannot do right now.

Lunch Servings

All eight-participant shared quite similar examples of what type of lunch they serve. The examples shared included - chicken nuggets, hot dogs, or pizza(P4), cold cut or microwaveable lunches (P5), or fish sticks (P7).

Participants 2, 6, and 5 serve fruits snacks, while P3 and P7 serve cookies/cakes or ice cream as snacks after lunch.

Dinner Servings

All eight participants serve a variety of meats as a main course including -salmon, chicken, corned beef (P3), Lasagna (P4) or pizza. Of eight participants, five served hot,

sit-down dinners with their children daily. Participants 2 and 6 felt COVID -19 contributed considerably to more at-home dinners so that visits for fast food restaurants are not happening. When interviewing P2 and P3, they each plan to seek other work so they could be at home more often than the 2-3 times week they currently spend with their children for a sit-down dinner. Participant 3 reiterated that although COVID-19 is creating more meal servings at home in evening, she is working toward securing a fixed-shift job that will permit daily supper meals with her children beyond what the pandemic is forcing right now.

Fruit Servings Challenge

Each family had issues relating to fruit servings. Those experiences varied between one serving daily to one serving weekly. Participants 1 and 7 served one fruit serving daily. Participant 2 shared that fruit servings were no more than once a week if that often". Participants 3,4,6, and 8 shared they make two fruits servings a daily -when they have them available. Participant 5 never answered question directly, just said they were "always there-until the drawer goes empty" then a refill was made during food shopping if affordable.

Each participant shared their personal views on the importance of vegetables and fruits as part of the family diet. The following table expresses their views with some personal statements quoted.

Table 4
Benefits of Fruits and Vegetables

Participant	Servings
P1	Serves 1/daily. saying "I could do better, my 7-year-old take supplemental vitamins because of refusing to eat fruits and vegetables "
P2	Response servings daily: "I would say, quite well, but I could do better"
P3	Serves 2/daily "I know they are" pretty important"; not use to buying them;
P4	Serves 2/daily. Saying – "I recognize them (no elaboration) verbalized.
P5	Never shared number serving /daily. saying, "I am aware". Always some in drawer or in cans.
P6	Serves 2/daily; Saying, "I serve them as long as COVID Economic Relief program is in effect, but uncertain of access once program ends".
P7	Serves one/day' Shared recognition but, problems with shopping for, saying" wish they could be more practical like a grab and go, obtaining them might add more sugars which are probably not so good at the end of the day".
P8	Shares recognizes value and tries to serve vegetables at dinner and "less starches even though the children like starches"; Serves 2 servings a day-

Theme 6: Views on Portion Limitations

All eight participants shared the need to offer more supervision over portion control which has not been viewed as a priority. Each essentially allow the children to eat whatever amounts they desire at meal servings.

Participant-3 has a school aged child who has been asthmatic since birth. Currently, the child experiences more frequent visits to the emergency room because of his breathing problems. Participant 3 feels the asthma is worse now because of obesity. She shared "Yesterday we had to go to the emergency room for his asthma…my son and I decided he has to cut back on his food". Previously portion control was not a priority

but is now since she learned that his asthma is complicated by his obesity. She said portion control is now a daily concern after speaking to her child's health care provider. She stated, "his weight fluctuates; But they said it does so because my son has severe asthma, and he is on steroids every day."

Participant 4 shared that she has been working harder with her teen and her healthcare team in supporting healthier food choices, portion control, and exercise. Her efforts increased as she realized her child's health became compromised by trouble breathing, further limiting her ability to exercise outdoors. To compensate, P-4, the health care providers, and the teen agreed to an in-door bike riding program where Participant 4 could ride alongside her daughter as an added emotional support. Participant 4 shared believes her partnership with her daughter encourages the teen's consistency in working toward achieving her weight goals which will enhance her self-esteem as she moves toward high school.

Participant 5 is currently addressing weight management issues for his 16-year-old daughter. He is pleased to be partnering with his sister, a specialist in weight training, to help him work with his daughter to make healthier food choices, commit to portion control, and to a consistent exercise program. P-5 shared that his own medical history greatly influences his talks with his children. He stated. "I have been rather intense because of my health issues and the fact that most of my family are overweight. So, I try to encourage them to eat healthy as possible. I am on dialysis now. So, I tell my children to use me as an example and to eat healthier. I buy healthier foods whenever that is most affordable."

Theme 7: After-School Snacking

All participants voiced their willingness in permitting after school snacks to be of the child's choosing. P1 shared that the preference for her children was Peanut butter and jelly while P2 P3, and P-8 allow chips, cookies, and "sweet chili Doritos". Participant P7 allows ice cream, but feels she can better support healthier snacks, by not bringing unhealthy snacks into the house. All participant has no reservations or concerns about limiting the type of after school snacks they make available for their child(ren),

Theme 8: Adaptability

All participants demonstrate resilience in meeting their daily tasks of providing food for their family. All eight participants experience supermarket distancing. Four of eight had concerns over market inventory, financial resources, and conflicting work schedules. Each participant demonstrated commitment to consistent food shopping for their families despite challenges they are confronted with daily in completing that process.

Participant 6 takes an Uber to get to the supermarket located more than a mile from her home. She is grateful that the fresh fruits and vegetables delivered by the government program help to decrease the frequency of her necessary trips to the supermarket.

Another example of adaptability is seen in comments made by Participant eight whose rotating night shift schedule interferes with her ability to plan regular food shopping. She shared that after leaving her night shift duty, "Uhm, I just get there very early in the morning".

Participant -7 implemented different means of adaption when she shared that COVID-19, forced her to change her approach to food shopping and having to take the kids to the market with her at times. She stated "(I have) more time to plan menus because of COVID; more time at home and can plan."

Summary

Results of the study are presented in this chapter. The eight participants in this study provided answers to the research questions - six women and two men. Data collection was performed through one-on-one telephonic interviews where 21 open-ended questions which included five sub-questions that supported obtaining more in-depth data. The questions allowed participants to think through how they perceived certain sensitive aspects of feeding their families in the presence of overlapping challenges in food shopping, menu planning, and lifestyle adjustments imposed by the lengthy COVID-19 pandemic.

The intent of the central research question was to allow participants to voice their opinions regarding the multiple factors influencing their lived experiences related to food selections-including planning and serving meals for all their children. The interview questions permitted opportunities to evaluate how they specifically addressed the foods of the overweight or obese child living among their other siblings who do not have weight management concerns. Their answers reflected the cultural and social modeling that defines their personal experiences. Their attitudes expressed in response to their experiences revealed resilience to a commitment to feeding their family despite convoluted challenges faced.

In Chapter 5, I will provide an interpretation of my findings, explore the implications, and offer a discussion on limitations of my study. I offer recommendations based on the study and how such recommendation might offer positive community input. My comments offer value in potential future research in the conclusion. Further description is made alluding to the impact of positive social change. Chapter 5 additionally offers strong recommendations for health care practitioners suggesting early nutritional education and referrals as needed for parents of obese or overweight children. Early intervention might foster early commitment by parents in seeing the benefit of healthier nutritional lifestyles and how such could health benefits and potential longevity for the entire household.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this Baltimore City-based qualitative study was to expand the understanding of the lived experiences of parents making nutritional decisions that impact the dietary behaviors of their family including their overweight or obese child. The intent was to closely examine the parental daily practices to meet nutritional needs while living in low-income areas known to have deficient access to healthy fresh fruits and vegetables.

Another facet of this study was an effort to understand the level of the basic nutritional knowledge that influenced types of food purchases made by parents intending to meet nutritional needs of their family. It was crucial to understand how parental interaction with their obese or overweight child largely impacted eating habits. To gain an in-depth understanding of the parental/child behavioral interactions, it was imperative to determine what parents understood about the relationship between foods consumed and the potential risks for certain illnesses such as obesity, diabetes, kidney disease, and hypertension.

Key Findings

Parents living in the Baltimore City food desert Zip Codes were found to be creatively empowered and resilient in meeting the needs of all their children. The unique limiting factors specific to their living environment were met with focus and adaptability that allowed them to perform proactively. This was seen in their commitment to dealing with unemployment, distant food shopping, irregular work schedules, or their personal

medical needs. This proved evident among all eight participants, ages 29 through 45, regardless of gender.

Each respondent described resources utilized to meet the needs for exercise and regular meal servings for their families. P4 partnered with a health care provider's referral to a weight management program for the child. The program focus was on portion control and exercise as forms of lifestyle changes. Participants demonstrated self-efficacy and empowerment through home exercise programs designed through dancing. P4 recently had chosen to join her child in riding a stationary bike. She shared that she had personal weight management challenges and felt she could help herself and be an encouragement for her child if she joined that form of safe indoor exercise. The thoughts and actions shared among the parents conveyed not only the parental support for their children in their creative exercise programs, but also served to make parents more aware of the importance of monitoring eating habits of their obese child. Evidence of self-awareness gained through the shared experiences or appreciated through interviews proved key in increasing parental awareness of the relationship between foods eaten, obesity, and risk for health problems for their children.

Another significant finding was the parental liberal allowance of less than healthy after school snacks and dessert servings. Seven of eight participants committed to feeding balanced three meals a day shared their leniency in allowing the children to eat snacks referred to as "junk foods" after school. The home inventory of these snacks included sweet buns, cookies, various type chips, or ice-cream. These overall practices are known to contribute to childhood obesity (Rolling & Hong, 2016). Despite this practice, seven of

eight parents maintained an overall commitment to healthier meal servings at other times. The eighth participant was the only one who exercised authority over after school and regular snacking. Using personal medical illnesses as an example, the parent guided his children toward making healthier food choices.

Interpretation of Findings

I interpreted findings based on three aspects of discussion. The initial aspect addresses enhanced knowledge of the importance of the parent's early awareness of the value of close nutritional management to decrease the potential health threats to their children secondary to obesity. The second section of interpretation discusses confirmations offered by the peer-reviewed literature. Finally, the third aspect reflects the evidence positing resilience and empowerment found throughout this study.

Advancing New Knowledge

New information and knowledge are offered to answer RQ1. One major revelation gleaned through this study was the extent to which the parents willingly shared their perspectives on how they fed their children. They were able to describe barriers they had to overcome to access the foods they needed to meet their desire to serve three meals a day as part of daily meal planning. This trend was evident throughout the study. The maximum educational levels reported included: (1) tenth grade, (1) high school, (3) some college, (2) AA, and (2) BS degrees. The parents were knowledgeable and receptive regarding their role in overseeing meal planning for their children at home. That trust was extended to other relatives when children visited with a coparent or grandparent.

An enhanced level of knowledge was gained in observing how each participant demonstrated consistency in attempting to serve the traditional three meals a day to their children. This offers an advanced understanding of the degree to which parents strived to serve three meals daily based on their concept of a balanced meal structure. Particularly at dinnertime, meals included a starch, meat, vegetables, and dessert. This structure was reliant considerably upon what they were accustomed to eating as taught by their mothers. Occasional deviation in this structure occurred with changes in the child's school schedule, from in classroom verses virtual learning, or when visiting a coparent.

Findings Supported by Other Studies

Significant findings in the literature of more than 100 publications showed a gap in understanding the role of parents' thoughts and actions related to feeding obese children. This new knowledge shows that although three meals serving might be traditional, it is nutritionally significant to discover the type and portion size of specific foods served during those three meals. Behavioral science research showed that factors related to the home feeding environment can positively influence overall eating behaviors through mindful strategies designed by parental planning of healthier meals servings. Positive behavioral changes with eating can be a determinant of feeding habits formed that can extend into early adolescence and early adulthood (Bergmeier et al., 2020).

This significant finding could be viewed through the lens of the SCT (Bandura, 1989), which reflects how positive behavioral changes can occur through direct efforts to portray self-regulation of certain behaviors of an individual. One participant's shared experience suggested how parental commitment to menu monitoring for a child can

produce positive outcomes. The mother of four had one obese child. She partnered with the health care provider in a goal to implement a portion-controlled diet and to eliminate grape sodas from the child's diet. As a result, the child's weight became more under control and there has been a reduction of grape sodas, but they have not yet been fully eliminated. The parent remains committed to partnering with her child and the health care provider [HCP] to behavioral changes in eating. In this case, positive behavior change is evident as well as the parent's commitment to assist her child toward making healthier food choices. Children's outcomes and success in positive change is more evident when parents perform in an authoritative way (Vollmer, 2019).

This participant, along with the remaining seven, shared an enhanced understanding of the connection between physical health status and obesity. One parent shared how the experience of multiple trips to the emergency room with her obese child helped her to understand how important diet control is for an obese child who is also asthmatic. Her plans include more strict rules regarding food portion control, less sweets, and an agreement to work with her son to accomplish the goals set by his doctors. Current research points to the need for more parental controls and increased parental knowledge of basic nutrition in low-income areas (BCHD, 2017).

Empowerment and Resilience

The qualitative approach applied in the data analysis in this study showed evidence of participants understandings and the meaning of their experiences. The unique experiences of each offered an opportunity for self-reflection of how they viewed their lived experiences as overseer of their family's nutrition.

This study provided an opportunity for each participant to examine their personal views on meal servings and the importance of fruits and vegetables as healthier food sources. Each interviewee had the opportunity to evaluate and share views candidly on what they knew about the association between obesity and the potential for illnesses affecting themselves and their children. Overall, respondent comments expressed their willingness to examine some of the tough areas where their behavioral practices could be improved. One participant shared she could do better and followed her comment to say that if she did not bring unhealthy foods into the home, then they would not be available for consumption by the child. Other opinions shared showed participants reflecting on the health benefit for their children and themselves based on what they served or allowed children to eat freely. These challenges and others, perhaps not covered in this study, will hopefully provide a basis for the participants to continue to examine their personal views on food selection and feeding behaviors that subsequently affect their children's eating habits.

Empowerment among all participants was evident. In one case, the parent of an obese child engaged a family member to work with his child to implement an exercise and limited food consumption program. The parent and family commitment for positive change resulted in better eating habits and successful weight reduction which is ongoing. The framework within Bandura's (1989) SCT was present in this case.

Although eight participants demonstrated resilience in providing three meals daily meals for their families, each verbalized difficulties faced in accessing fresh fruits and vegetables when visiting their distant supermarkets located more than a mile away.

However, their determination was evident in their expressed version of how they overcome challenges related to work, school, or limited financial resources. For example, those with work-schedule issues went early hours after working a night shift just to access fresh fruits and vegetables for their families.

Limitations of the Study

This study has been conducted through self-reported information which poses a limitation. As such, participants may have offered understated or overstated views to impress the researcher, or to not reveal the extent of actual in-home experiences related to preparing foods for their children. They may have offered limited information regarding their true experiences related to financial resources which would impact both getting to the market and monies available to desired fresh fruits and vegetables. However, when needed, rephrasing by researcher helped to clarify comments made to ensure that information given reflected what was truly meant to be shared.

Other limitations regarding information sharing were not likely since there was no group referrals in this study. All interviews were conducted telephonically because of the COVID-19 pandemic.

Recommendations

This study served to explore thoughts and behavioral experiences of eight caregivers living the nutritional experiences in feeding their overweight or obese child. Those exposures were essentially synonymous with the parents' own lifestyles in eating behaviors. Lydecker and Grilo (2016) posited that understanding parental behaviors is essential to reducing the childhood obesity. It seemingly is essential to further explore

means to guide parents toward enhanced nutritional education that could possibly produce increased self-efficacy in recognizing the health benefit and support healthier at-home feeding practices. The strengths assessed in this study as revealed through the shared experiences strongly suggest the importance of parental involvement in guiding children's nutritional journey while living in the limited food access areas in Baltimore City.

Success was evident through evidence seen in some food portion control, exercise, and engaged parental support. Such implemented strategies could function on a larger scale where parents remain the central strategist. Throughout this study, there was a recognized need for increased interfacing with parents that could guide them toward early recognition of the importance of assuming a more authoritative role when it comes to concentrated sweets and sodas allowed for after school snacking or dessert servings. Such enhancement in nutritional education could help guide the participants toward self-efficacy and eventual commitment toward positive behaviors reflecting healthier snack servings for their children.

Future Research

The increasing rates of obesity among school -aged children remains at pandemic proportions (CDC, 2019b). There is a need to target parents in their exclusive role as food mediators with their children. This proves essential in determining what their children eat daily and their children's opportunities for physical exercise. Future research on this subject could serve as a catalyst to improve healthy feeding habits and instill or enhance

the physical, psychosocial, and emotional status of children affected by obesity (Vollmer, 2019).

Vollmer's (2019) study found that it was important for healthcare providers, in discussing the quality of the child's diet with parents, to provide baseline education to the parent to support a healthy feeding style and parenting practices. That education could provide a framework for planning initiatives. Because this study was limited in the ability to thoroughly examine how to impact current parental practices toward improved dietary practices at home, particularly related to after-school snacking, it is feasible that a larger qualitative examination might be performed that could be shared with local community leaders and legislators. These actors could create a parent-centered program. Ongoing interactions intended to improve overall healthy nutritional knowledge and home feeding environments could benefit families, particularly those raising children at risk for obesity. Research focused on the home environment is undoubtably the key setting to help shape parents and the child's eating behaviors, exercise, and screen media use.

Implications for Positive Social Change

Findings in this study show the potential for positive social change for parents living in the food deficit areas in Baltimore City. Positive social change could emerge through a community-based, parent centered program missioned to improve at -home eating habits. The home environment is the place where initial exposure to eating occurs. Through increased self-awareness, an enhanced commitment to support positive change in-home dietary food practices, could eventually be reflected throughout the community. Overtime, the positive change could reduce the prevalence of childhood obesity and the

increasing challenges placed upon public health in addressing increasing physical, psychological, and psychosocial problems often suffered by children who are overweight or obese. As new familial strengths and weaknesses are revealed through research, the community and public health might collaboratively create innovative means to reduce, risks for obesity among children through family education leading to healthier at-home food practice.

Conclusions

The central message from this basic qualitative study suggests that parents are the primary essential intermediaries for the dietary journey experiences of their families' children. Further, there is value in mentioning that as participants were interviewed, they, at times indicated they recognized their need for increased awareness of how food choices impacted the health of their children-especially as related to snacking and after school snacking. However, it was evident that there existed an awareness that it was necessary to monitor their children's daily food intakes as negative health concerns became evident. Those revelations triggered a greater self-awareness for food -associated illnesses and helped guide those affected parents to a prompt sustained commitment to healthier eating practices for their entire family.

The resilience is evident among all parents who proved committed to purchasing and preparing three meals a day to their children. However, it is significant to note evidence showed a need for increased self- awareness to recognizing the importance of fruits and vegetables and for the need to decrease unhealthy snacks allowed as part of daily snacking. Increase in basic nutritional knowledge could be an essential benefit to

the participants. Over time, enhanced basic nutritional education could prove an asset in meeting the medical and emotional needs of obese children. Understanding the need for and seeking innovative ways to create more daily physical exercise and less screen media activities is essential to forming healthy lifestyle habits that include healthier nutritional behaviors with nth entire family.

Problems related to distant supermarkets is actively addressed through their personal efforts to access the supermarket to gain access to the fresh meats, fruits, and vegetables they desired. However, future research focused on improved community services through interventions created by government and local community leaders could help create an enhanced health benefit for parents and their families affected by limited access to healthier food inventories.

The problem as it exists with addressing the needs of obese children in this study shows parents becoming most responsive to their child's obesity when it became complicated by health issues such as developed breathing or skin problems which eventually impacted the child's ability to function in a healthy state. Enhanced proactive basic nutritional educational programs, centrally targeting parental involvement could serve as early deterrent to interrupt unhealthy food cycles leading to obesity and associated health risks for the entire family. Such efforts could possibly expand community wide.

Resilience and empowerment seen in this study among all participants is commendable. However, proactive education to increase healthier food practices in the home could help decrease unhealthy practices. Getting parents involved in nutritional

education helps improve in-home healthy dietary practices which are key to increasing parental awareness. Sustained healthy nutritional practices among caregivers living in the food dessert zones could potentially help reduce the community percentages of childhood obesity and associated health risks among children and adults.

References

Bagherniya, M., Sharma, M., Mostafavi Darani, F., Maracy, M. R., Safarian, M., Allipour Birgani, R., Bitarafan, V., & Keshavarz, S. A. (2017). School-based nutrition education intervention using social cognitive theory for overweight and obese Iranian adolescent girls: A cluster randomized controlled trial. *International Quarterly of Community Health Education*, *38*(1), 37-45. https://doi.org/10.1177/0272684x17749566

Baltimore City Department of Planning. (2015, June). *Data & demographics*. Retrieved December 2, 2017, from https://planning.baltimorecity.gov/planning-data

Baltimore City Department of Planning. (2018). *Baltimore City 2018 food environment brief*. .https://planning.baltimorecity.gov/sites/default/files/City_FoodEnv_Brief_2018.pdf

Baltimore City Department of Planning. (2018). *Baltimore City Demographics at a Glance*. Retrieved July 28, 2021, from https://planning.baltimorecity.gov/sites/default/files/2a_City%20Profile%20-%203.30.16_0.pdf

Baltimore City Department of Planning. (2021, May 27). *Food policy & planning...* https://planning.baltimorecity.gov/Baltimore-food-policy-initiative

Baltimore City Health Department. (2017). *White paper: State of health in Baltimore, summary of key issues, services, and policies*.

https://health.baltimorecity.gov/sites/default/files/BCHD%202017%20White%20Paper_0.pdf

Baltimore City Health Department. (2018, May). *White paper: State of health in Baltimore summary of key issues, services, and policies*. https://health.baltimorecity.gov/sites/default/files/BCHD%20White%20Paper%20May%202018.pdf

Baltimore Hunger Project. (2020). *Feeding bodies and minds*. Retrieved April 5, 2020, from https://www.baltimorehungerproject.org

Bandura, A. (1989). Human agency in social cognitive theory. *American Psychologist*, *44*(9), 1175-1184. https://doi.org/10.1037/0003-066x.44.9.1175

Bergmeier, H., Paxton, S. J., Milgrom, J., Anderson, S. E., Baur, L., Hill, B., Lim, S., Green, R., & Skouteris, H. (2020). Early mother-child dyadic pathways to childhood obesity risk: A conceptual model. *Appetite*, *144*, 104459. https://doi.org/10.1016/j.appet.2019.104459

Blake-Lamb, T. L., Locks, L. M., Perkins, M. E., Woo Baidal, J. A., Cheng, E. R., & Taveras, E. M. (2016). Interventions for childhood obesity in the first 1,000 days a systematic review. *American Journal of Preventive Medicine*, *50*(6), 780-789. https://doi.org/10.1016/j.amepre.2015.11.010

Center for a Livable Future. (2018). *Baltimore City's food environment: 2018 report*. https://clf.jhsph.edu/sites/default/files/2019-01/baltimore-city-food-environment-2018-report.pdf

Centers for Disease Control and Prevention. (2019a, June 24). *Childhood obesity facts*. https://www.cdc.gov/obesity/data/childhood.html

Centers for Disease Control and Prevention. (2019b, July 24). *Defining childhood obesity*. https://www.cdc.gov/obesity/childhood/defining.html

Centers for Disease Control and Prevention. (2019c, June 24). *Overweight and Obesity*. Retrieved January 19, 2020, from https://www.cdc.gov/obesity/data/childhood.html#Prevalence

Centers for Disease Control and Prevention. (2020a, February 4). *Adult obesity*. Retrieved April 5, 2020, from https://www.cdc.gov/obesity/adult/causes.html

Centers for Disease Control and Prevention. (2020b, October 21). *Violence prevention*. Retrieved July 29, 2021, from https://www.cdc.gov/violenceprevention/youthviolence/bullyingresearch/fastfact.html

Centers for Disease Control and Prevention. (2021a, April 7). *About overweight and obesity*. https://www.cdc.gov/obesity/about-obesity/index.html

Centers for Disease Control and Prevention. (2021b, March 19). *Causes and consequences of childhood obesity*. https://www.cdc.gov/obesity/childhood/causes.html

National Health and Nutrition Examination Survey. https://www.cdc.gov/nchs/nhanes/index.htm

Centers for Disease Control and Prevention. (2021d, March 1). *Why it matters*. Retrieved July 29, 2021, from https://www.cdc.gov/obesity/about-obesity/why-it-matters.html

City of Baltimore. (n.d.). *Food insecurity in Baltimore, Maryland*. https://www.arcgis.com/apps/MapJournal/index.html?appid=aa5fa344bdfb47759893fbee0782ea07

Cooksey-Stowers, K., Schwartz, M., & Brownell, K. (2017). Food swamps predict obesity rates better than food deserts in the United States. *International Journal of Environmental Research and Public Health, 14*(11), 1366. https://doi.org/10.3390/ijerph14111366

Covington, M. (2017, February 8). *Why is obesity a disease?* Obesity Medicine Association. Retrieved July 29, 2021, from https://obesitymedicine.org/why-is-obesity-a-disease/

Díez, J., Bilal, U., Cebrecos, A., Buczynski, A., Lawrence, R. S., Glass, T., Escobar, F., Gittelsohn, J., & Franco, M. (2016). Understanding differences in the local food environment across countries: A case study in Madrid (Spain) and Baltimore (USA). *Preventive Medicine, 89*, 237-244. https://doi.org/10.1016/j.ypmed.2016.06.013

Fang, X., Zuo, J., Zhou, J., Cai, J., Chen, C., Xiang, E., Li, H., Cheng, X., & Chen, P. (2019). Childhood obesity leads to adult Type 2 diabetes and coronary artery

diseases. *Medicine*, *98*(32), e16825. https://doi.org/10.1097/md.0000000000016825

Food Pantries. (n.d.). *Cities in Maryland*. Maryland Food Pantries. Retrieved April 5, 2020, from https://www.foodpantries.org/st/maryland

Food Research and Action Center. (2016, September). *Food hardship in America*. Food Research & Action Center. Retrieved January 28, 2020, from https://frac.org/wp-content/uploads/food-hardship-report-households-with-children-sep-2016.pdf

Glanz, K., Rimer, B. K., & Viswanath, K. (2015). Theory, research, and practice in health behavior and health education. In *Health behavior and health education: Theory, research, and practice* (5th ed., pp. 23-40). John Wiley & Sons.

Haire-Joshu, D., & Tabak, R. (2016). Preventing obesity across generations: Evidence for early life intervention. *Annual Review of Public Health*, *37*(1), 253-271. https://doi.org/10.1146/annurev-publhealth-032315-021859

Hassink, S. G. (2017). Early childcare and education: A key component of obesity prevention in infancy. *Pediatrics*, *140*(6), e20172846. https://doi.org/10.1542/peds.2017-2846

Knol, L. L., Myers, H. H., Black, S., Robinson, D., Awololo, Y., Clark, D., Parker, C. L., Douglas, J. W., & Higginbotham, J. C. (2016). Development and feasibility of a childhood obesity prevention program for rural families: Application of the social cognitive theory. *American Journal of Health Education*, *47*(4), 204-214. https://doi.org/10.1080/19325037.2016.1179607

Kyle, T. K., Dhurandhar, E. J., & Allison, D. B. (2016). Regarding obesity as a disease: Evolving policies and their implications. *Endocrinology and Metabolism Clinics of North America, 45*(3), 511-520. https://doi.org/10.1016/j.ecl.2016.04.004

Lian, Q., Su, Q., Li, R., Elgar, F. J., Liu, Z., & Zheng, D. (2018). The association between chronic bullying victimization with weight status and body self-image: A cross-national study in 39 countries. *PeerJ, 6*, e4330. https://doi.org/10.7717/peerj.4330

Ling, J., & Stommel, M. (2018). Parental and self-weight perceptions in U.S. children and adolescents, NHANES 2005-2014. *Western Journal of Nursing Research*, *41*(1), 42-57. https://doi.org/10.1177/0193945918758274

Llewellyn, A., Simmonds, M., Owen, C. G., & Woolacott, N. (2015). Childhood obesity as a predictor of morbidity in adulthood: A systematic review and meta-analysis. *Obesity Reviews*, *17*(1), 56-67. https://doi.org/10.1111/obr.12316

Lydecker, J. A., & Grilo, C. M. (2016). The Apple of their eye: Attitudinal and behavioral correlates of parents' perceptions of child obesity. *Obesity*, *24*(5), 1124-1131. https://doi.org/10.1002/oby.21439

Maffeis, C., & Morandi, A. (2017). Effect of maternal obesity on foetal growth and metabolic health of the offspring. *Obesity Facts*, *10*(2), 112-117. https://doi.org/10.1159/000456668

Mailey, E. L., Phillips, S. M., Dlugonski, D., & Conroy, D. E. (2016). Overcoming barriers to exercise among parents: A social cognitive theory perspective. *Journal*

of Behavioral Medicine, *39*(4), 599-609. https://doi.org/10.1007/s10865-016-9744-8

Maryland Department of Health. (2019, December). *Obesity*. Pages - Prevention and Health Promotion Administration Home. Retrieved January 29, 2020, from https://phpa.health.maryland.gov/ccdpc/healthy-lifestyles/Pages/obesity.aspx

Maryland Department of Human Services. (2019). *Maryland Hunger Solutions*. https://www.mdhungersolutions.org/food-insecurity-and-food-hardship/. https://www.mdhungersolutions.org/food-insecurity-and-food-hardship/

McMahon, S. A., & Winch, P. J. (2018). Systematic debriefing after qualitative encounters: An essential analysis step in applied qualitative research. *BMJ Global Health*, *3*(5), e000837. https://doi.org/10.1136/bmjgh-2018-000837

Misiaszek, C., Buzogany, S., & Freishtat, H. (2018). *Baltimore City's food environment: 2018 Report*. Center for a Livable Future. Retrieved July 28, 2021, from https://clf.jhsph.edu/sites/default/files/2019-01/baltimore-city-food-environment-2018-report.pdf

National Institutes of Health. (2016, March 16). *Guiding principles for ethical research*. https://www.nih.gov/health-information/nih-clinical-research-trials-you/guiding-principles-ethical-research

Powell, M. B., & Brubacher, S. P. (2020). The origin, experimental basis, and application of the standard interview method: An information-gathering framework. *Australian Psychologist*, *55*(6), 645-659. https://doi.org/10.1111/ap.12468

Robert Wood Johnson Foundation. (2019, October). *State briefs: Maryland*. The State of Childhood Obesity. Retrieved 2019, from https://stateofchildhoodobesity.org/states/md/

Rolling, T. E., & Hong, M. Y. (2016, November 25). *The effect of social cognitive theory-based interventions on dietary behavior within children*. *Journal of Nutritional Health & Food Science, 4*(5). 1–9. https://doi.org/10.15226/jnhfs.2016.00179

Sahoo, K., Sahoo, B., Choudhury, A. K., Sofi, N. Y., Kumar, R., & Bhadoria, A. S. (2015, April). *Childhood obesity: Causes and consequences*. PubMed Central (PMC). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4408699/

Saldana, J. (2016). *The Coding Manual for Qualitative Researchers*. (3rd ed.). SAGE Publications.

Schwendler, T., Shipley, C., Budd, N., Trude, A., Surkan, P. J., Anderson Steeves, E., De Morais Sato, P., Eckmann, T., Loh, H., & Gittelsohn, J. (2017). Development and implementation: B'More healthy communities for kid's store and wholesaler intervention. *Health Promotion Practice, 18*(6), 822-832. https://doi.org/10.1177/1524839917696716

Sigmund, E., Sigmundová, D., Badura, P., & Madarasová Gecková, A. (2018). Health-related parental indicators and their association with healthy weight and overweight/obese children's physical activity. *BMC Public Health, 18*(1). https://doi.org/10.1186/s12889-018-5582-7

Steinberg, N., Nemet, D., Pantanowitz, M., & Eliakim, A. (2018). Gait pattern, impact to the skeleton and postural balance in overweight and obese children: A review. *Sports*, *6*(3), 75. https://doi.org/10.3390/sports6030075

Takizawa, R., Danese, A., Maughan, B., & Arseneault, L. (2015). Bullying victimization in childhood predicts inflammation and obesity at mid-life: A five-decade birth cohort study. *Psychological Medicine*, *45*(13), 2705-2715. https://doi.org/10.1017/s0033291715000653

Theofanidis, D., & Fountouki, A. (2019, January 29). *Limitations and delimitations in the research process*. Zenodo. https://doi.org/10.5281/zenodo.2552022

Trandafir, L. M., Russu, G., Moscalu, M., Miron, I., Lupu, V. V., Leon Constantin, M. M., Cojocaru, E., Lupu, A., & Frasinariu, O. E. (2020). Waist circumference a clinical criterion for prediction of cardio-vascular complications in children and adolescences with overweight and obesity. *Medicine*, *99*(30), e20923. https://doi.org/10.1097/md.0000000000020923

U.S. Department of Agriculture. (n.d.). *Data & research*. USDA Food and Nutrition Service | USDA-FNS. Retrieved April 5, 2020, from https://www.fns.usda.gov/data-research

U.S. Department of Agriculture. (2020, September 9). *Key statistics & graphics*. USDA ERS. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx

U.S. Department of Health and Human Services. (2017, September 28). *The roles kids play in bullying*. https://www.stopbullying.gov/bullying/roles-kids-play. https://www.stopbullying.gov/bullying/roles-kids-play

U.S. Department of Health and Human Services. (2020, January 12). *Nutrition and weight status | Healthy people 2020*. https://www.healthypeople.gov/2020/topics-objectives/topic/nutrition-and-weight-status

Vardaman, J. M., Amis, J. M., Wright, P. M., & Dyson, B. P. (2020). Reframing childhood obesity: The role of local communities in change implementation failure. *Human Relations, 74*(2), 258-285. https://doi.org/10.1177/0018726719899464

Vizzuso, S., Del Torto, A., Dilillo, D., Calcaterra, V., Di Profio, E., Leone, A., Gilardini, L., Bertoli, S., Battezzati, A., Zuccotti, G. V., & Verduci, E. (2021). Visceral adiposity index (VAI) in children and adolescents with obesity: No association with daily energy intake but promising tool to identify metabolic syndrome (MetS). *Nutrients, 13*(2), 413. https://doi.org/10.3390/nu13020413

Vollmer, R. L. (2019). Parental feeding style changes the relationships between children's food preferences and food parenting practices: The case for comprehensive food parenting interventions by pediatric healthcare professionals. *Journal for Specialists in Pediatric Nursing, 24*(1), e12230. https://doi.org/10.1111/jspn.12230

Vollmer, R. L., & Mobley, A. R. (2017). Parenting styles, feeding styles, and their influence on child obesogenic behaviors and body weight. A review. *Appetite, 71*, 232-241. https://doi.org/10.1016/j.appet.2013.08.015

Walden University Academic Research Center. (2019). *Institutional Review Board for Ethical Standards in Research*. https://academicguides.waldenu/researchcenter/orec. https://academicguides.waldenu/researchcenter/orec

Wang, Y., Min, J., Khuri, J., & Li, M. (2017). A systematic examination of the association between parental and child obesity across countries. *Advances in Nutrition: An International Review Journal*, *8*(3), 436-448. https://doi.org/10.3945/an.116.013235

World Health Organization. (2018, February 16). *Noncommunicable diseases: Childhood overweight and obesity*. https://www.who.int/dietphysicalactivity/childhood/en/

World Health Organization. (2020a). *Ensuring ethical standards and procedures for research with human beings*. https://www.who.int/ethics/research/en/

World Health Organization. (2020b, October 19). *Noncommunicable diseases: Childhood overweight and obesity*. Retrieved July 29, 2021, from https://www.who.int/news-room/q-a-detail/noncommunicable-diseases-childhood-overweight-and-obesity

World Health Organization. (2021a). *About WHO*. https://www.who.int/about

World Health Organization. (2021b, June 9). *Obesity and overweight*. https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight

Wu, Y., Lau, B. D., Bleich, S., Cheskin, L., Boult, C., Segal, J. B., & Wang, Y. (2013, June). *Future research needs for childhood obesity prevention programs: Identification of future research needs from comparative effectiveness review No. 115 [Internet]*. PubMed. https://pubmed.ncbi.nlm.nih.gov/24027795/

Xu, H., & Verre, M. C. (2018). Type 2 Diabetes Mellitus in Children. *American Family Physician, 98*(9), 590-594.

Young Hong, M. (2016). The effect of social cognitive theory-based interventions on dietary behavior within children. *Journal of Nutritional Health & Food Science, 4*(5), 1-9. https://doi.org/10.15226/jnhfs.2016.00179

Ziser, K., Decker, S., Stuber, F., Herschbach, A., Giel, K. E., Zipfel, S., Ehehalt, S., & Junne, F. (2021). Barriers to behavior change in parents with overweight or obese children: A qualitative interview study. *Frontiers in Psychology, 12*. https://doi.org/10.3389/fpsyg.2021.631678

Appendix: Interview Protocol

Interview Date: _____

Interview Location: _____

Start Time: _____

End Time: _____

Interviewee Encryption: _____

Interviewed By: _____

Documentation System**:** _____

Introduction to Interview (5min):

Hello, Ms./Mr. _____, I thank you for the time you have taken to meet with me today. As I shared with you in our first meeting, your interview will contribute to a broader understanding of your lived experience as a parent guiding the food choices for your child. Further, the information gained might assist health care providers in designing programs for overweight/obese children that will improve their chances for healthier lives as adults. Your important thoughts will be of value in these ways by adding to our understanding based on the valued input from parents.

You have been asked to take part in this study because you agreed to do so. You have also been made aware your ability to change your mind about being a participant as well as your right to not answer any questions you choose to not answer. Questions will focus on your subjective experiences as the parent in charge of your child's diet. There is no right, or wrong answer so please feel free to offer as much detail as you wish during our interview.

While you have signed the consent form, I would like to remind you that the interview will be tape-recorded so to best capture your ideas that I can thoroughly review

and understand. Finally, be reminded that you will receive a $30.00 gift card at the end of this session. Are there any questions you have for me before we begin?

Demographic Data

Age_____ Marital Status _____ Zip code_____

Education: _____ Employed _____ Unemployed _____

Occupation (if employed): _____

Number of children: _____

Research Questions 1 and 2

I-What are the lived experiences of parents/caregivers who are raising obese children?

a. What type of foods do you buy when I go food shopping?

1. Do you routinely buy fresh, frozen, or canned fruits?

2.Where do you get those foods shopping?

3. Do you use supplemental programs such as SNAP, EVT?

b. Can you give me an example for a one-day menu you serve for breakfast, lunch, and dinner?

c. Do your children eat a meal before going to school in the morning?

If not, why not?

d. Does your child eat fruit daily? [Y= How many?], [N)=Why not?]

e. Are their sodas in the home? [Y- Are there rules regarding soda consumption? [N] Do you think they are drinking them outside the home?]

f. Are there any rules about eating healthy foods?

g. Are there any house rules about DO's and Don'ts house about nutrition?

h. Does your child eat vegetables? [Y= what type do they prefer? How many times a day? Are they allowed to choose the vegetables they want to eat? [N= Why do you think they refuse veggies?]

i. Does your child request "junk foods"? [Y= If so, how often? What does he/she request?], [NO=Why do you believe they do not prefer junk food?]

II- What is the level of understanding held by low-income parents as it relates to basic nutritional knowledge?

a. Do you feel it is important that they eat vegetables and fruits daylily? [Y= Why?],

[N= Why not?]

b. How are you with recognizing the health benefit of fresh fruits and veggies as part of your daily meal plan?

c. Dos your child eat in between meals. [Y=What might they eat? How much are they allowed to eat?]. [N= Why do you believe they do not eat between meals?]

d. Are you familiar with the idea of portion control?

1.Do you limit the portion size served to your child

2. Does your child eat meals away from home?

3.Under what circumstances do they eat meals away from home?

4. Are you your kids eating snacks away from homes? When?

5. How often do you eat meals home together?

6. How well do you feel prepared to recognize the connection between what your child eats and their possible risks for illness form too much sugary drinks and sweets, salty foods, or fatty foods [like chips, French fries]?

7.. Has your HCP told you that your child is overweight or obese? [Y=How have you been directed to help with this? [N=]

8. How often do you and your child discuss food choices for snacks or meals?

9. Can you share your ideas about creating a healthy meal?

10. What do you believe might be a need for your action to increase the daily intake of fresh fruits and vegetables, and healthy snacks for your children?

11. Is your child active, daily physically? [Y= What type, and how often, w/ or w/o parent? [N=why are they not more active? - not safe,]

12. Have you considered dancing videos, such as Michael Jackson?

13. Are there ways that you think you can increase more fruits, and vegetable consumption for you and your children?

Sum-up Questions

a. Is there anything else you would like to describe?

b. How are you feeling after sharing your thoughts with me?

Closing Statement

Again, I thank you for you your time that you have taken to share your experiences with me. If you feel you need to contact me following this interview, please feel free to contact me at 443-717-2717, or by email at jean.gaffney@waldenu.edu. Please remember, your confidentiality is protected throughout this process, and all information is securely stored throughout this study. I may contact you if there is a need to clarify any information so let me verbalize your contact information once again. Have a wonderful day. Here is your gift card.