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The Association of Maternal Education, Income, and Race on Reduction Childhood Obesity

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Abstract

The Associations Among Maternal Education, Income, Race, and Reduction in Childhood Obesity

by

Ronell Michel

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Childhood obesity (CO) remains an increasing and challenging public health development concern in the United States. Though Florida was indicated to have a reduction in CO, the associations of race, maternal education, and income with CO reduction remain underexplored. In this quantitative study employing social cognitive theory as a theoretical framework, 511 mothers of obese children were surveyed to understand factors associated with the progressive reduction of their children's body mass index (BMI) over time. Race, income, level of education, and BMI of children during the previous four years were collected and analyzed using logistic regression. Results showed a strong relationship between the reduction of CO and maternal education. Mothers who attended college/associate degrees have a fourfold increased chance of reporting a decrease in child obesity than mothers with qualifications below high school. A strong association was found between a mother's income and the reduction of CO. Hence, it is recommended that public health experts develop multiracial programs to enhance the health resilience of communities in Florida. Implications for positive social change include the potential for reducing the prevalence of childhood obesity and thus improving childhood and adult health and mortality.

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Chapter 1: **Introduction to the Study**

Background

The United States is dealing with a significant overweight problem, largely attributed to the continuing prevalence of childhood obesity (CO; Keener et al., 2009; World Health Organization [WHO], 2018). This issue affects both genders, younger and older adolescents, and is evident in all states, social classes, and ethnic backgrounds. The data from 2016 projections revealed that over 40 years, the count of obese school-age children and adolescents has multiplied by more than 10, reaching 124 million from the initial 11 million. The impact of childhood obesity varies across the globe, remaining a pervasive public health epidemic (Matei & Bareille, 2018; Sanyaolu et al., 2019). Among the affected nations, developed countries stand out with the most pronounced effects (Anderson et al., 2019; Bergeron, 2019; Lanigan et al., 2019). Enhancements in food production methods and storage, combined with better family health, particularly among the younger population in the community, have led to the engagement of all family members in productive work activities, resulting in higher family incomes and increased consumption. However, it has also compromised the family members' overall health and well-being, especially the children's, making them vulnerable to weight gain conditions and obesity.

The global public health challenge of CO has been adequately acknowledged and addressed by both intergovernmental and governmental entities. Multiple alliances and strategies have been formulated, resulting in the implementation of measures and interventions to manage and combat this issue. A primary focus lies on promoting

lifestyle changes, especially in dietary habits and physical activity levels (Ells & Summerbell, 2005; Lancet, 2015; UNICEF, 2015; WHO, 2018). Dietary practices causing excessive satiety and disrupting hormonal balance are key drivers of rapid weight gain, frequently leading to severe and even fatal outcomes (Matei & Bareille, 2018). The Surgeon General of the United States in 2001 remarked that CO as a major health concern owing to the significant resources which were devoted to combating the phenomenon, including public health initiatives, the establishment of aid-based feeding programs, adjustments made to school feeding and nutrition policies, and further actions taken (Anderson et al., 2019).

The CO epidemic is classified as a complex condition that emerges from the interplay between genetic and environmental factors, with diets playing a crucial role. Obesity is a severe problem in the United States perhaps as a result of the accessibility of foods with a high calorific glycemic index (WHO, 2018). Sugary snacks like soft drinks and pastries are available while there is a lack of vegetables and fruits in the typical school lunch menu (Milbank, 2009). The necessity for rules in schools to align school meals with established standards has become more evident. Policies in schools should emphasize the introduction of physical activity programs to enhance the development of healthy lifestyles.

Environmental impacts, community characteristics, neighborhood alliance and trust building, crime and threat control, teachings on personal safety, and social networks have also been explored as factors on CO. Reviews on socioeconomic factors, health concerns, political factors, ethnicity, and religious dimensions, a lack of physical

activities and play programs for children, dietary habits and body shape, and the degree of neighborhood support is also in constants toward CO control (Carter & Dubois, 2010). The prevalence of obesity in children and adolescents aged 2 to 19 varies significantly among different ethnic groups (Sanyaolu et al., 2019). Notably, the prevalence was highest in non-Hispanic Black children and adolescents at 25.8% and Hispanic children and adolescents at 25.1%. However, there were no notable differences in the overall prevalence of obesity across these ethnic groups. The trend was similar among girls, with non-Hispanic Asian girls having a prevalence of 10.1%, non-Hispanic Black girls at 23.6%, non-Hispanic Hispanic girls at 13.5%, non-Hispanic White girls at 13.6%, and non-Hispanic Hispanic girls at 25.1% with obesity. These resurging rates of childhood obesity have made it important to consider the management and control of the epidemic in light of sociocultural, economic, educational, political, scientific, and technological considerations.

Poor nutritional intake, insufficient exercise, a sedentary lifestyle, and family features like parenting styles and parenting behaviors are additional contributing variables (Sahoo et al., 2015). Children pick up their parents' active or inactive lifestyles (Strauss, 1999). How the family influences obesity prevention, children's food, exercise habits, and lifestyle choices are directly related to the occurrence of obesity in the broader population (Gray et al., 2018). Children under the age of 7 in the United States have shown a strong correlation between the lifestyle of the child and the characteristics of families and family decisions, with 11.3% of the variance in children's weight by the age of 7 is attributed to family lifestyle (Gray et al., 2018). Because of this, factors must be

taken into account when conducting research on CO. Families who have learned about the risks of obesity and how to prevent it via food and exercise have shown to have better health outcomes. Therefore, knowing and explaining care, management, and the rise or fall of childhood obesity depend on family education, particularly mother education.

Obesity has a significant impact on both the mental and physical aspects of health (Sanyaolu et al., 2019). Children having heightened fatty tissues face an increased likelihood of developing several cancers, including breast, kidney, colon, esophagus, and pancreatic cancers. Moreover, the implications of CO are not confined to individual well-being but extend to societal and national issues, including divisions, economic disadvantages, diminished productivity, health problems, higher morbidity rates, and premature deaths (NPA, 2005). These major national development issues are reflected in the physical, mental, social, and economic effects experienced in the United States due to CO as well as in social inequality and other kinds of racial injustice.

the importance of family has been recognized (Gray et al., 2018; Owen et al., 2011; Wilson, 2003), it is still unknown how each family member contributes to the development, obstruction, supervision, and treatment of early obesity in the context of the U.S. father and mother. To address this issue, the family, school institutions, and health care officials continue to play a crucial role (Gray et al., 2018; Milbank, 2009; Sullivan & Planas, 2016). This research is focused on Broward County, Florida, and how lifestyle education can contribute to the prevention and management of CO. As the second most populous county in Florida and the 17th most populous in the United States, Broward County is estimated to have around 1,952,778 residents, according to the 2019 Census

Bureau data. Situated in the southeastern region of Florida, the county boasts a diverse population comprising various ethnic and racial groups backgrounds. This diversity offers an ideal context for testing the central hypotheses of this study, seeking to empower families in their role of controlling and managing CO and bolstering the effectiveness of national initiatives in reducing, preventing, intervening, and controlling CO.

Problem Statement

CO in the United States is becoming a major public health issue. According to a recent study based on a sample survey, juvenile obesity in the United States increased between 1978 and 2016 from 5% to 18.5% (Anderson et al., 2019). The study also discovered that from the age of 10 until the age of 18, age-group obesity rises continuously. CO is also racially and ethnically centered. In the United States, Hispanic and Black children are more probable to become obese than those coming from Asian, White, or non-Hispanic backgrounds. Furthermore, it has been demonstrated that low-income families and communities, whose kids lack basic dietary knowledge and information and lack access to facilities for physical activity, are more likely to experience childhood obesity.

In industrialized nations like the United States, where a better health care system makes it easier to prevent and treat disorders that affect children, obesity is more prevalent. In the United States, food processing, storage, and marketing have led to recent increases in the prevalence of health care issues such as pediatric obesity (Galvez et al., 2010). Through initiatives and programs for schools, families, and communities, efforts

are continuously undertaken to control this public health issue (Parliament et al., 2016). In comparison to national statistics, Florida's rate of CO has been significantly lower and managed due to this initiative (Parliament et al. 2016). According to the Robert Wood Johnson Foundation (2020), 12.7% of Florida's children aged 2-4 is obese, placing the state thirty-fourth out of fifty-one in the nation.

Despite Florida reporting a lower national rate of pediatric obesity, this study is centered on understanding CO as a growing local health concern in Broward County. Though Florida's nutrition program catering to children and women has been addressing the principal factors contributing to CO, which primarily involve children's dietary patterns and sedentary behaviors, the role of parent education and maternal education in shaping childhood obesity control and management in this region has not received sufficient attention in existing studies. I examined how maternal education influences lowering the rate of childhood obesity to reflect racial, ethnic, and socioeconomic gaps among inhabitants. It is important to understand the responsibilities played by the family and, most notably, the mother's education to reduce CO in Broward County. This study bridges the research gaps concerning the influence of maternal education on the prevention and management of obesity during childhood.

Purpose of this Study

Race, income, and education influence lifestyle. This study was focused on how these impacted the trends in the reduction in CO in the study area. Focusing on the relationship between these factors can help establish strategies to address CO in Broward County, Florida. I collected data roles of mothers and connectivity in mothers' roles as a

catalyst in the control of the growth of CO.

Research Questions and Hypotheses

Research Question 1: Was there an association between maternal education and the reduction of CO in Broward County, Florida?

$H_0$1: There is no interrelation between maternal education and the reduction of CO in Broward County, Florida.

H_a1: There is an interrelation between maternal education and the reduction of CO in Broward County, Florida.

Research Question 2: Was there an interrelation between the mother's income and the reduction of CO in Broward County, Florida?

$H_0$2: There is no interrelation between the mother's income and the reduction of CO in Broward County, Florida.

H_a2: There is an interrelation between a mother's income and the reduction of CO in Broward County, Florida.

Research Question 3: Was there an interrelation between race and the reduction of CO in Broward County, Florida?

$H_0$3: There is no association between race and the reduction of CO in Broward County, Florida.

H_a3: There is an association between race and the reduction of CO in Broward County, Florida.

Research Question 4: Can child obesity get eliminated using maternal education in Broward County?

Theoretical Foundation for the Study

To demonstrate how racial, income and racial groups differ in the CO management and control trend outcome in the study area, I used the social cognitive theory (SCT). In 1986, psychologist Albert Bandura expanded the social learning theory (SLT) into what is now known as SCT. The primary argument of the theory is that individuals acquire knowledge about themselves and their behaviors through direct observations and personal experiences during everyday social interactions (Boston University, 2019). To explore illness prevention and health promotion with a focus on behavioral changes, Bandura refined the SCT in 1998. According to the SCT, three crucial aspects of human behavior—dynamic, personal, and environmental elements—must be under control to promote healthy lifestyles and prevent and manage diseases. The theory further asserted that some key ideas, most significantly self-regulation and knowledge, personal self-efficacy, and goal-setting, are essential to designing, implementing, and maintaining health modification and corrections while also being central to explaining human health behavior (Bandura, 1999). These various components can all be seen in the dynamics of racial, socioeconomic, and educational groupings.

The SCT has been widely utilized and embraced in the study of obesity to account for and predict specific activities, causes, and care interventions (Adhikari et al., 2018; Berghernuya et al., 2015, 2018; Hidayanty et al., 2016; Knol et al., 2016). To investigate and comprehend the dynamics of the declining trend in CO prevalence among racial, socioeconomic, and educational groups in Broward, Florida, the SCT was selected for this study. Applying SCT in the study helped illustrate how the patterns of income and

education of the various classes varied in connection to the decline in CO. The theory also highlighted the significance of various social (racial) household (income) and education (level of formal learning) as enhancing collective efforts in reducing CO.

Nature of the Study

The research followed a quantitative approach and involved data collection from a specific sample comprising mothers and guardians of obese children in Broward County. A survey using questionnaires as the primary data collection tool, and the collected data were analyzed using logistic regression. Investigation of several variables, including the educational level, race, and income of the mothers/guardians as well as the children's BMI to assess their influence on childhood obesity reduction as defined in the study was conducted.

The main data source was a questionnaire administered to 511 mothers who were contacted for the study. To ensure uniformity in the structure of questions, the questionnaire was designed in a closed-ended format. This facilitated the precise categorization of responses for ease of collation, coding, sorting analysis, and interpretation of responses in preparation for inferential analysis of findings to test the study's assumption.

Definition of Key Concepts

Care: The management of obesity in children in Broward County, Florida.

Childhood obesity: A health issue where a child's weight significantly exceeds the expected range for their age. It is a serious and life-threatening health issue that can have severe consequences on the physical, mental, social, and economic aspects of a

child's life.

Maternal education: The type and level of formal education attained by the mothers of obese children in the research area.

Assumptions

Scope and Delimitations

The scope of the research was limited to the experiences of mothers and their obese children in Broward County. There was limited time to handle the research among all subjects. Moreover, some subjects were also not willing to share information that could be helpful for the study.

Limitations

The study was limited to the experiences of mothers of obese children in Broward County in their forms of education, income, and race to reinforce their responsibility in their care for their children as it affects the obese child's progressive reduction in body mass index. The study relied on the information supplied by the subjects on their understanding of the questions in the instruments. Due to constraints during the survey completion process such as tracking, there might exist potential biases in the respondents' answers. Respondents might have provided positive answers due to the influence of the location of the instrument administration and timing.

Significance of the Study

The research is important in its exploration and analysis of maternal education, income, and race as impact progress in management and reduction in CO. In demonstrating how income and education influence the progression of CO reduction in

the study area, the study exposes social and economic gaps that need to be taken care of to fortify care and prevent CO. In this sense, communities, parents, local and federal authorities involved in health care, educators, and food regulation agencies can use the data from the study's findings to identify strategies for advocacy and other helpful measures intended at controlling the condition of CO.

Summary

The study is about child obesity. Child obesity is a health situation where a child exceeds the expected weight at a particular age. A research topic was established to study the impacts, and causes of obesity on children in various families. The study also looks at race, income, and gender as factors that contribute to child obesity.

Chapter 2: **Literature Review**

CO continues to be a significant public health concern in the United States. However, the health records for Florida show progress with a reduction in the prevalence of this issue, impacting various counties and communities positively. This study addresses the level of maternal education, income, and race as factored into the trend in progression with CO control in Broward County, Florida. This chapter offers a comprehensive review of the literature concerning CO as a global phenomenon, including its causes and impacts. It delves into the specific context of childhood obesity in the United States, exploring the prevalence and associated factors as well as the mother's involvement in addressing the same.

Literature Search Strategy

The literature used for this study was sourced from Google Scholar, online African journals, PubMed, Cochrane Library, and EMBASE. The Walden Library searched for articles on the subject under consideration. The search was conducted using the following keywords: *childhood obesity*, *childhood obesity in the United States*, *care and management of childhood obesity*, *roles of mothers in childhood obesity*, *challenges of care in childhood obesity*, and *prevention of childhood obesity*. Following the discovery of pertinent research, bibliographies and reference lists were checked for pertinent studies that were missed by computerized searches. The search covers English-language studies from 2010 to 2020, both quantitative and qualitative.

Literature Review Related to Key Variables

Childhood Obesity as Global Epidemic

The most alarming worldwide health issue is CO (Al-Qerem et al., 2017; Karimy et al., 2019; WHO, 2016). CO is widespread in both underdeveloped and developing nations (Karimy et al., 2019). The incidence of CO is highest among countries in southern Europe (Kandasami, 2019), with a combined prevalence of more than 40% (Ahrens et al., 2014). The prevalence of childhood obesity overall rose between 2015 and 2017 in nations like Italy, Greece, Cyprus, Malta, and Spain, translating to 1 in 5 males (18%–21%), though it decreased more slowly among girls. In Canada, about 1 in 3 children are obese, and this trend is somewhat and significantly likely to persist into adulthood (Blanchette et al., 2019). In the United States, childhood, and teenage obesity are epidemic problems (Pan American Health Organization, 2015). Obesity during childhood is a national problem in the United States, with a rate of more than two times for children and four times for teenagers in the past three decades, one-third of children are assumed to have weight problems (Counchonnal et al., 2015). Currently, in the United States, it impacts about 2.2% of preschool children (Parliament et al., 2016). The rate could be one out of every three children (Craig et al., 2017). Though youth obesity is still a well-known public health problem with well-known causes and effects, it is also a complicated epidemic that requires greater focus and study to both lessen and eliminate its effects on a national and group level.

Causes of Childhood Obesity

The factors leading to childhood obesity have been researched. The causes of

obesity in adults and children are the same (Papoutsi et al., 2011). Food practices including eating breakfast, eating junk food regularly, and watching TV while eating were linked to OB (Karimy et al., 2019). There are also fewer weekly opportunities for active playtime and physical education classes at schools (Counchonnal et al., 2015). Additionally, there is constrained access to healthy diets at homes, schools, or daycare, and unwholesome food is constantly being promoted. Households with greater unemployment rates and poor parental income and education are other contributing factors to the emergence of the obesity epidemic in America (Williams & Greene, 2018). This can lead to poor attention to and comprehension of children's weight and inherited health disorders (Pak et al., 2011).

Consequences of Childhood Obesity

The effects of CO around the world have been shown by numerous studies. Morbidity and mortality play a significant role in children's higher weight growth (Arunachalam & Kandasami, 2019). CO has negative effects on psychiatric, psychological, and psycho-social development that raise the risk of developing non-communicable diseases (NCDs) during adulthood (Di Cesara et al., 2019). Obesity has an impact on almost every system and organ of the human body—mainly, the heart, brain, kidneys, lungs, and bones (Counchonnal et al., 2015). CO follows a person through adolescence and the rest of their life (Ruiz et al., 2016; Williams & Greene, 2018) and provides a basis for the development of other related illnesses such as asthma, cardiovascular disease, and diabetes. Other researchers have demonstrated that CO has negative health and societal effects on conditions like asthma, cancer, and diabetes (Caird

et al., 2011).

Individuals find the physiological and psychological impacts of childhood obesity to be the most strange. Studies have shown that childhood obesity has more severe effects on both people and their societies. Obesity has an impact on the physical and social well-being of children as well as their self-esteem, according to Sahoo et al. (2017). Scholars claim that this development harms children's academic achievement as well as their overall quality of life. According to Counchonnal et al. (2015), children with obesity have a higher likelihood of missing lessons, doing poorly in school, struggling to build strong self-esteem, and experiencing bullying from their peers who are healthy weights. Obesity and financial hardship are increasingly linked, which is made feasible by the condition's increased medical costs (Warren, Becks, and Delgado, 2019). Opportunities are being hampered by this development, which affects people and communities more and more.

In the United States, where obesity is linked to children from specific social, racial, and economic strata, cases of subpar academic achievement and low self-esteem are reflected. Childhood obesity has a significant negative impact on entire communities due to increased healthcare expenditures, decreased academic achievement, and decreased worker productivity (Center for Child and Family Policy, Duke University, 2011). Poor sociability has been identified as a significant imminent element in this direction. In the United States, ethnic groups and communities are known to experience poor scholastic achievement and, as a result, poor employment opportunities. This point of view is consistent with the assertion made by Caird et al. (2011) that impacts of obesity on people and the general population at large are not yet properly researched.

The significant financial burden that childhood obesity places on governments and individuals is one of its growing effects. Globally, adult obesity is projected by WHO (2017) to cost $2.0 trillion annually. Counchonnal et al. (2015) projected that by the year 2030, the state of Missouri is expected to allocate $12 billion each year for obesity-related healthcare costs, attributing these expenses to the trends in childhood obesity. The health consequences of childhood obesity and the significant burden it places on society were noted by Karimy et al. (2019), who proposed that managing and preventing it is a crucial objective for all nations.

Childhood Obesity in the United States

Many studies have extensively examined the problem of childhood obesity in the United States. Williams and Greene (2018) have contributed significantly to this area of research, leading to a vital conclusion that childhood obesity in the US is indeed a significant and concerning problem. While Gies (2017) stated that obesity in children had reached alarming rates and was now parents' top health concern, exceeding smoking and drug use. In the United States, the prevalence of obesity shows variations concerning various demographic factors, such as sex, ethnicity, education, income, and geographical location. As with several other health indicators, racial and ethnic differences are among the most notable contributors to the pronounced disparities observed in obesity rates (Warren, Becks, and Delgado, 2019). In the US, childhood obesity is still mostly a societal concern. Williams and Greene (2018) noted that while minority cultures and other locations may not always appreciate a healthy body weight, the majority of cultures in many American regions place a high priority on making sure that their children are not

obese.

Over 100 million Americans, or one-third of all Americans, have obesity-related issues right now (Warren, Becks, & Delgado, 2019). The country has seen a 70% increase in obesity levels in the last 30 years (1988–2016), and the childhood obesity rate has increased by 85% during the same period. Over half of the states in the U.S.—33—saw increases in their obesity rates from 2013 to 2018 that were statistically significant, according to Warren, Becks, and Delgado (2019). Positively, there was a substantial drop in the proportion of inactive people between 2017 and 2018 in 30 states. However, childhood obesity rates in the US continue to increase, many academics still contend that it is a socioeconomic class issue (Ruiz, 2016, Anderson, Butcher, and Schanzenbach, 2019). Accordingly, Warren, Becks, and Delgado (2019) assert that despite obesity being a widespread health problem that affects all populations, its prevalence is higher in those groups where societal and economic factors limit health disparities. The statistics on adult and pediatric obesity demonstrate racial disparities. In 2015-2016, more than half of Black adults and Latino adults (46.8%) and (47%) respectively were reported obese. This indicates a significant 24% higher than the rate for White people (37.9%).

With such a visible tendency in children's obesity rates, Latino children rate (25.8%), Black children's rate (22%), and White children rate (14.1%) in terms of prevalence. The impediments to healthy behavior that contribute to poverty and obesity are identified as racism and other types of prejudice. With the constant increase between early childhood and teenage hood, childhood obesity rates showed a huge problem in a population as adult obesity was demonstrated to be a corollary of being overweight in

childhood (Anderson, Butcher, and Schanzenbach,2019). Hence, targeted deterrence geared toward helping families gain access to healthy nutrition and play areas remains strategic in America's drives to end the problem of obesity (Center for Child and Family Policy, Duke University, 2011 & Lynch, et al., 2012).

According to research undertaken by Craig et al. (2017), from 2004 to 2014, adult obesity increased in the United States at a consistent rate across all racial and ethnic groups. According to the survey, 39.8% of adults in the U.S. were obese. In general, adults between the ages of 40 to 59 years had a 42.8% obesity rate. Those aged between 20 to 39 years were at (35.7%. Adults between the age of 60 years and above stood at 41.0%. At the individual, community, and national levels, obesity hurts Americans. These obesity rates have heightened the chances of physical and mental disease. Also, premature death. Furthermore, these high rates resulted in reduced productivity and increased healthcare cost. Consequently, this trend significantly impacted the nation's military capacity and response to threats (Warren, Becks, and Delgado, 2019).

Preschool Obesity

Children, one of society's most prized resources, are in danger due to the childhood obesity (CO) epidemic (Parliament et al., 2016). Every child's 0–6-year-old years are the most crucial for their physical, psychological, and social development (Sahoo et al., 2015; di Cesara et al., 2019). According to Gies et al. (2017), the first 3 years of life are a crucial time when children's unmet dietary demands may negatively affect their short- and long-term health and physical development, particularly their psychomotor ability. The risk of being fat, according to Counchonnal et al. (2015), begins

in early childhood, while behaviors and dispositions are still developing. As a result, the implications of preschool obesity are important for public health practice and policy.

There is a rise in preschool obesity in the United States. Gies (2017) observed that compared to their normal-weight peers, pres-choolers aged between 2-5 years who are obese are five times more likely to experience the same at the age of 12 years. Studies indicate that childhood obesity is on the rise at a rate of 13.9%, which is slightly lower than the rates observed among school-aged children (18.4%) and teenagers (20.6%). Moreover, adolescent girls (20.9%) show a higher prevalence of obesity compared to preschool girls (13.5%), while school-aged boys (20.4%) have a higher prevalence than preschool boys (14.3%). The trends in childhood obesity have been progressively worsening, as highlighted by Butcher and Schanzenbach (2019) and Kandasami and Arunachalam (2019). Additionally, it has been noted that nearly 65% of mothers with preschool-aged children were not aware of childhood obesity as a health issue. According to a study by Moshinga et al. (2017), overweight pre-schoolers in Zimbabwe are a result of inadequate nutrition education and a lack of awareness of how to moderate eating behaviors. Arunachalam and Kandasami (2019) assert that parental obesity-related behaviors contribute to childhood obesity because parents play an important role in their children, especially young children. The academics argued that early infancy is a crucial time for a child's development and is therefore essential for carrying out an intervention to prevent CO.

Parenting Care: Mothers and Childhood Obesity

Studies have tried to explain how moms may contribute to and control childhood

obesity. Arunachalam and Kandasami (2019) used 120 mothers of obese children to study the attitudes of obese mothers toward childhood obesity, its causes, and control and concluded that to effectively deter obesity, both the mother and the child need to have a positive attitude toward obesity and its prevention. Similar findings were made by Karimy et al. (2019), who discovered a strong connection between mothers' views and healthy bodies. According to Belser et al. (2019), it is crucial for mothers of obese children to regularly collaborate with nutrition educators, other health professionals, and professional school counselors in some form of workshop because children, as their parents, should be informed about the role of healthy diets and habits. Parents' lack of awareness of childhood obesity poses a serious obstacle to intervention because obesity and other signs of ill health may be mistaken for a sign of a healthy lifestyle (Arunachalam and Kandasami, 2019).

Blanchette, Lemoyne, and Trudeau (2019) contend that parental participation is essential for influencing children's healthy lifestyles. This is because parenting entails actions like teaching, rewarding good behavior, and setting an example for children, all of which have an impact on their eating habits and physical activity levels. Children adopt their parents' lifestyles for eating and living in general. Therefore, addressing the issue of childhood obesity will only be effective with active parental involvement. This is because proactive parents are still essential for comprehending the components and dynamics of disease development, identifying these contributing factors, and actively changing their behavior and that of their children (Pakpour, Yekaninejad, & Chens, 2011). Therefore, Warren, Becks, and Delgado (2019) recognize that it's critical to give priority to those

people and places with alarming rates of obesity and, historically, minimal institutional intervention when thinking about additional policies and initiatives. Concentrating on these neighborhoods is both an issue of equity and provides the best chance for advancement.

The need of educating women in Iran to improve their living habits and attitudes toward managing their children's weight was highlighted by Karimy's (2019) study. Mushonga et al. (2017) evaluated parental knowledge and attitudes toward children's nutritional condition in the Mashonaland East Province of Zimbabwe. The results show that parents have a big impact on how their kids establish their eating habits and food preferences. Given that parents serve as examples for children's eating behaviors, parents' knowledge of and attitudes toward nutrition play a significant effect in children's development. The study demonstrates a strong correlation between parents' educational attainment and their knowledge of nutrition. Notably, there was a strong relationship between food consumption and acquired knowledge.

Additionally, 0.4% of the parents had adequate food intake scores and had strong nutrition knowledge. According to this study, the majority of parents (83.4%) were aware of the idea of a balanced diet. 72% of the parents had food intake scores that ranged from poor to borderline, hence this did not convert into actual behavior.

Ruiz (2016) uses extensive prospective data collected from 11 European cohorts involving over 45 thousand children to examine the relationship between poor maternal education and the likelihood of being overweight or obese. It involved children between the ages of 4 to 7 years from various European settings during early childhood. The

results showed that from all the 11 European nations, inadequate maternal education was associated with a significant risk of early childhood obesity. According to the study, moms with greater levels of education can lessen their children's vulnerability to the elements that cause childhood obesity. This is accomplished by improving appropriate parenting techniques, expanding access to and ownership of family-friendly neighborhoods, and lowering deprivation. Contrarily, it was discovered that low maternal education is linked to maternal characteristics that are indicative of the onset of obesity in children. These include smoking during pregnancy, limited breastfeeding, insufficient dietary consumption of food, and psychological issues linked to family backgrounds (Ruiz, 2016).

In their investigation of the role played by a mother's education in preventing and treating childhood obesity, Belser et al. (2019) emphasized the value of psychological educative programs for parents and families in the school curriculum. Paying attention to food labels, understanding, and adhering to dietary guidelines. Also, encouraging the child to be more involved in physical activities, shopping for reasonably priced, nutrient-dense foods, and developing awareness of the dangers of obesity are all suggested as potential topics for parent workshops (Belser et al.). Lynch et al. (2012) make an argument about the importance of parents in curbing and control of childhood obesity. The claim asserts that parents hold the most significant psychosocial influence in the lives of preteen children. By collaborating with parents and enhancing their knowledge and skills, it is possible to foster healthier lifestyles for children, reducing the risk of obesity, and yielding various other positive outcomes.

Managing Childhood Obesity

Despite the recognition of childhood obesity as a mounting threat to the American population, addressing the issue remains challenging. Warren, Becks, and Delgado (2019) propose that combating childhood obesity requires addressing broader social determinants of health, including physical activeness, access to healthy food, and opportunities for education among others. These factors are influenced by institutional racism and national poverty which impacts lifestyle choices concerning the prevalence and repercussions of childhood obesity. Thus, to effectively combat obesity, comprehension of the various factors that contribute to its prevalence is a must. Also, taking steps to address them, such as resolving historical injustices and underinvesting in areas where resources are scarce and promoting culturally appropriate, healthy lifestyle choices for individuals (Warren, Becks, and Delgado, 2019). Education continues to be an effective component in this direction. The stakeholders in this issue including children, parents, institutions, authorities, and society must act accordingly (Williams and Greene, 2018).

According to WHO (2017), to combat childhood obesity, providing the right education is a must. That is, to children, their parents, and teachers, about issues such as healthy lifestyles, physical activeness, and other habits. The body reaffirmed the need for whole-school programs and peer education to impact physical activeness in children and other social norms to accomplish this. In its 2019 recommendation to address global overweight and childhood obesity issues, UNICEF suggested conducting a situation analysis alongside a stakeholder analysis. The purpose of this analysis is to identify the

key actors involved in the increase in childhood overweight and those relevant to the prevention of childhood overweight. Additionally, UNICEF emphasized other crucial actions to be taken in tackling the problem of childhood overweight and obesity worldwide. A crucial step is the creation of alliances with the major players for cooperative advocacy and the orchestrated efforts involving the phenomenon. While stressing the importance of mothers' education continues to be crucial and essential to the success of these suggestions.

According to Warren, Becks, and Delgado (2019), to effectively reach those who are most in need, it is imperative to implement educational and policy-based interventions. Also, practice-based interventions that target all cultures, healthcare systems, regions, as well as socioeconomic levels. This is crucial because the impacts of overweight and obesity on the health outcomes of children and adolescents affect everyone, necessitating a comprehensive and inclusive approach to address the issue. The role of the family has been demonstrated to be the primary focus of worldwide concerns and efforts to prevent childhood obesity (WHO, 2017, UNICEF, 2017). Parents play a vital role as role models for their children, starting at home, school, and in the community (Arunachalam and Kandasami, 2019). Research on the influence of a mother's knowledge on interventions in Iran, Pakpour, Yekaninejad, and Chen (2011) discovered that pre-existing knowledge that mothers possessed and their income levels were key to identifying and mitigating the issues of obesity in their children. When compared to moms who did not receive any intervention, the educational intervention dramatically increased mothers' capacity to recognize childhood obesity.

Harper (2012) conducted a study on intervention strategies for childhood obesity and found that a combination of family-based and school-based approaches, such as parental training and nutrition education as well as promoting physical activities, proved effective in decreasing weight in children and adolescents. Similarly, Blancette et al., (2019) conducted a qualitative study and discovered that parents preferred a multifaceted health approach to keep track of their children's health, and parents of obese kids in organized groups recognized the importance of their role in transforming their family's lifestyle. Harper (2014) emphasized that each scenario and situation is different, and so is the treatment for every obese child. Effective primary prevention approaches require parental knowledge, attitudes, and family commitment, as mentioned by Arunachalam and Kandasami (2019). In line with this, Warren, Becks, and Delgado (2019) asserted that all Americans should have the ability to arrive at healthy decisions for their families, irrespective of their location, income, or racial and ethnic background. Communities must assist them in accomplishing this by providing creative services and activities.

Summary of Literature

The main focus of this chapter is to review the literature used for research on childhood obesity. The body of research demonstrates that childhood obesity, or the tendency for children's adiposity to rise, remains a widespread issue. Both developed and developing nations are impacted. Environmental factors override inherited ones as the main causes. The effects, which are particularly harmful to youngsters, can be seen in both a community's and a country's successful living and growth. Childhood obesity rates has been on the rise in the United States over the past 20 years, despite the state's

endorsement and execution of numerous intervention programs.

The deep relationships between the disease and the economic, social environment, and health have made tackling obesity in children a complex and challenging issue for states and healthcare professionals. Families and parents, particularly educated mothers, were portrayed as being essential to the success of interventions in both rich and developing nations. To close the knowledge gap on the consequences of education and racial disparities in the care and maintenance of this problem, this study emphasizes these perceptions in the exploration of these facts connected to maternal education, income, and race in the progression of CO in Broward County.

Chapter 3: **Research Method**

The research methodology, sample size, research objectives, researcher role, participant selection processes, data collection processes, instrumentation, and data analysis strategy are all covered in this chapter. The safety of human test participants will also be covered.

Research Design and Approach

The study has a descriptive and an evaluation component. A survey research design was chosen as the study's organizational and methodological framework since a survey is a type of research that enables the data collection from significant samples (Harrell & Bradley, 2005). The objectives of using a survey are to depict trends of phenomena under inquiry. Importantly, survey data enable statistical testing on the assumptions and the interpretation of the assumptions, such as logistic regression analysis. In general, surveys are a type of research methodology for gathering significant amounts of varied data from a wide range of geographic regions.

The Role of the Researcher

I was the lead investigator, creating the research topic for the study and being in charge of its overall direction, data collection, and adherence to the project's ethical standards. Following the study objectives and hypotheses, the researcher controls the data collection process and procedure. I analyzed and interpreted the data collected and reported the study's findings.

Setting

This research was carried out in Broward County. In Broward County, Florida,

there are 1,952,778 inhabitants living in nine districts, 31 municipalities, and 24 incorporated cities. The county's population is made up of 62.3% White people, 17.1% Hispanic people, 30% African Americans, 5.07% Asian people, 2.20% people of two or more races, 0.66% Native Americans, 0.16% Pacific Islanders, together with 0.20% people of other races. With 64.44% of the population speaking English, it was the most common language in the county. After the Miami-Dade system, the county's school district is the largest in the state and the sixth largest in the nation. The poverty rate in this county is 12.3% for all ages, and the typical household income is $71,206, as for educational attainment, bachelor's degrees and above account for 32.4% of those aged 25years and above who hold a diploma for high school or higher education (Florida Legislature, 2021). There are signs that some areas of the county have higher rates of obesity in comparison to others (Health Foundation of South Florida, 2020). This area served as a testing ground for the study assumptions using the data that was gathered. Data for the study were gathered in several randomly chosen locations, including Weston, Miramar, Fort Lauderdale, North Lauderdale, Lighthouse Points, Parkland Hollywood, Copper City.

Methodology

Study Sample

Five hundred eleven (511) respondents agreed to participate in the survey. In Broward County, Florida, there are about 31,277 children who are obese (Health, 2020). All mothers who have or have had a child in the last 9 years are included in the study's sample.

Recruitment Procedures

The participants in the study were attracted through an advert for the study approved by IRB Walden University. The adverts were placed in communities, schools, and recreational parks. The advert described the study and directed interested participants to contact me for the study.

Data Collection Process and Procedures

Data were collected in the study through both direct administered questionnaires. Subjects who contacted me through the advert were given the instrument of study to fill out and return for storage and processing. Community organizations, schools, recreational parks and centers, and CO intervention coordinators also helped to refer people for the study.

Instrumentation

The study adopted Harper's (2014) Need Assessment for Childhood Obesity Intervention Program and the San Jose Mercury (2004) Survey on CO questionnaires, improvising on selected items in these tools to cater to the objectives of the research. The final study questionnaire was close-ended in nature and divided into three sections for child/children anthropometrics and the social demography of samples, which included critical data points such as sex, income, BMI, districts, level of education, and the number of obese children.

Data Analysis Plan

Filled questionnaires returned to me were immediately entered into a spreadsheet. Codes were applied to the subject's entries and the subject's responses. The aggregate of

the responses was later processed in the computer through the Statistical Package for Social Sciences (SPSS), which elicited the descriptive data developed to test the assumption of the study using logistic regressions. These processed data constitute findings presented and interpreted in Chapter 4.

Threats to Validity

Ethical Human Protection

Human subject protection has been cited as a sign of the validity of the conclusions (Connelly, 2014). As a result, while carrying out the study, the Walden University IRB requirements and ethnic considerations were both followed. An advertisement for the study included a clear description of the study, its purposes, and detailed consent to participate in the study. Only subjects who indicated interest and contacted me and consented to participate were included. All through and after the study, participants' confidentiality is maintained through no exposure and nondisclosure of identity. The identification of participants with numbers is tagged on the instrument.

Summary

The research was carried out in Broward County, Florida. Different methods of research were put into use and data was collected from various subjects. The survey research involved tactics such as the use of questionnaires in the collection of data. Chapter 4 discusses more about the findings from the research.

Chapter 4: **Results**

This study involved examining the relationship between income, race, and level of a parent's education in tackling the issues of childhood obesity in Broward County, Florida. After IRB approval, fieldwork on a sample of 511 was administered with the instrument of study. This chapter presents and analyzes the data collected from the study. The chapter was developed from the collation, cleaning, sorting, and categorization of the 511 questionnaires returned by the respondents. The chapter is in two sections. The first part deals with descriptive data gleaned from the study, which illustrates the phenomena of childhood obesity in Broward County. The next section demonstrates the implications of the descriptive data from the point of view of the studies y's' assumptions tested using logistic regression.

Descriptive Analysis

This section presents the descriptive statistics of items in the questionnaire; frequency and percentages are used to describe categorical variables. Table 1 depicts the age distribution of respondents in the study. It shows that mothers between ages 20–25 years and 26–30 years combined were 44% of the subjects of the study. This age group defines crucial and delicate stages in motherhood in the United States as its earliest stage in adolescence on its economic and social implications. Therefore, most of the mothers in the study are younger, whose experience caring for obese children needed monitoring and reinforcing for the utmost result in the control of obesity in the state.

Table 1

Age Distribution of Participants

Variable	Category	Frequency	Percent
Age group	20 - 25 years old	113	22.1
	26 - 30 years old	114	22.3
	31 - 35 years old	193	37.8
	36 - 40 years old	68	13.3
	41 years old or older	23	4.5
	Total	511	100.0

Table 2 demonstrates the race distribution of the subjects of the study. The implication of this data is largely related to the experiences of the Hispanic/Latino, non-Hispanic, as well as Hispanic Blacks and do not justify the occurrence of CO, which is not the focus of the study. That makes the experiences of the Pacific islander, Native Americans, and other races, as indicated in the study, relevant, especially concerning the application and implication of the theoretical social learning theory as the standpoint of the study.

Table 2

Race Distribution of Participants

Variable	Category	Frequency	Percent
Race	Hispanic/Latino	161	31.5
	Non-Hispanic Black	112	21.9
	Non-Hispanic White	126	24.7
	Pacific Islander	46	9.0
	Native American	43	8.4
	Other	23	4.5
	Total	511	100.0

Table 3 displays the educational status of respondents.

Table 3

Participants' Level of Education

Variable	Category	Frequency	Percent
Highest education completed	Below High School	113	22.1
	Some High School	130	25.4
	High School Graduate/GED	126	24.7
	Attended college/Associate Degree	72	14.1
	Bachelors Degree	47	9.2
	Masters Degree or higher	23	4.5
	Total	511	100.0

Table 4 demonstrates the level of income reported by respondents. Most of the respondents' income is $50,001 to $75,000 (31%). In simple terms, most of the respondents (in sum 79%) earned $25,000 or less than $75,000. This is followed by respondents who earned $100,000–$150,000 or more, at a combined 21%. The implication of income to care, management, and control of CO have been demonstrated as crucial (Bandura, 2002).

Table 4

Income Distribution for Participants

Variable	Category	Frequency	Percent
Income category	$25,000 or less	110	21.5
	$25,001 - $50,000	134	26.2
	$50,001 - $75,000	158	30.9
	$75,001 - $100,000	46	9.0
	$100,001 - $150,000	43	8.4
	$150,001 or more	20	3.9
	Total	511	100.0

Most of the respondents, ninety-seven percent were informed of their children being obese with time under study. Only three percent of the respondents reported otherwise. The significance of this finding is the relativity of data to establish the validity,

reliability, and generality of the experiences with CO in the study area of Broward County, Florida.

In terms of the children's gender distribution, most of the respondents reported having female children as against male children. The data 54% (female) and 46% (male) is used in this data for both nominal and ordinal consideration of subjects' children. The purpose of the study is to indicate the implications of race, income, and maternal education on the reduction of obesity in children in the study area without demarcation based on gender. Hence, though 96% of the mother ever being informed by professionals of obesity in their children, the results did not suggest prevalence in the subject's children based on gender but the natural demographic composition of children in the respondents as studied.

Hypotheses Testing

Logistic regression was applied in the study to measure the level of correlation between a mother's education, income, and race with the reduction of CO in Broward Country, Florida; a 5% level of significance was used throughout the analysis. A Hosmer and Lemeshow test, which investigates if the logistic regression model is significant, produced the following results: chi-square = 59.700, df = 7, and significant = .000. If the *p*-value of the test ($p < 0.001$) is less than 0.05, this implies that the model is significant, and therefore fit for use.

It can be observed from Table 5 that the *p*-value of the correlation between maternal education and the reduction of CO is 0.030 ($p < 0.05$), hence the first null hypothesis is rejected, and meaning there is a strong correlation between maternal

education and the reduction of CO in Broward County, Florida. The analysis revealed that mothers who attended college/associate degree are four times more likely to have a reduction of CO than mothers who have qualifications below high school, and mothers with bachelor's degree are two-and-a-half times more likely, whereas mothers who have attended some high school or have master's degree or higher are less likely to experience a reduction of CO than those with qualification below high school.

Table 5

Logistic Regression Model

								95% CI for EXP(B)	
		B	SE	Wald	df	Sig.	Exp(B)	Lower	Upper
Step 1[a]	highest education completed[b]			12.386	5	.030			
	Some High School	-1.065	1.293	.678	1	.410	.345	.027	4.348
	High School Graduate/GED	.624	.713	.768	1	.381	1.867	.462	7.545
	Attended college/Associate Degree	1.376	.493	7.798	1	.005	3.960	1.507	10.402
	Bachelors Degree	.938	.959	.956	1	.328	2.555	.390	16.753
	Masters Degree of higher	-1.445	1.736	.693	1	.405	.236	.008	7.077
	Income category[c]			11.759	5	.038			
	$25,001 to $50,000	1.539	.762	4.077	1	.043	4.660	1.046	20.761
	$50,001 to $75,000	2.257	.854	6.986	1	.008	9.551	1.792	50.911
	$75,001 to $100,000	.366	.802	.208	1	.648	1.442	.299	6.946
	$100,001 to $150,000	.239	.624	.146	1	.702	1.270	.374	4.314
	$150,001 or more	.005	1.224	.000	1	.997	1.005	.091	11.072
	Race/Ethnicity[d]			41.188	4	.000			
	Non-Hispanic Black	-3.772	.654	33.258	1	.000	.023	.006	.083
	Non-Hispanic White	-.621	.840	.547	1	.460	.538	.104	2.786
	Pacific Islander	2.985	1.111	7.220	1	.007	19.793	2.243	174.678
	Native American	.644	.783	.676	1	.411	1.905	.410	8.844
	Constant	-.728	.267	7.438	1	.006	.483		

a. Variable(s) entered on step 1: Highest education completed, Income category, Race/Ethnicity.

b. reference category is Below High School

c. reference category is $25,000 or less

d. reference category is Hispanic/Latino

The p-value of the association between the mother's income and the reduction of CO is 0.038 ($p < 0.05$), which leads to the rejection of the second null hypothesis and the conclusion that there is a significant association between the mother's income and the reduction of CO in Broward County, Florida. The analysis showed that mothers with income between $50,000 to $75,000 are nine-and-a-half times more likely to have a reduction of CO than mothers with income of $25,000 or less, and those with income between $25,000 to $50,000 are four-and-a-half times more likely, whereas mothers with income above $75,000 are equally likely to have a reduction of CO with those who have an income of $25,000 or less.

Further, the *p*-value of the association between race and the reduction of CO is < 0.001 ($p < 0.05$), hence the third null hypothesis is rejected, and there is a significant association between race and the reduction of CO in Broward County, Florida. It is observed from the analysis that Pacific Islander mothers are 20 times more likely to have a reduction of CO than Hispanic/Latino mothers, Native American mothers are two times more likely, whereas non-Hispanic Black mothers are significantly less likely to have a reduction of CO, non-Hispanic White mothers are equally likely to have a reduction of CO than with Hispanic/Latino mothers.

Summary

In this chapter, we got to understand the relationship between obesity and other factors. Since it is mostly observed in children, females are the most affected at fifty-six percent as compared to the male at forty-four percent. Other factors contributing to

obesity such as income and age brackets have also been discussed here.

Chapter 5: Discussion, Conclusions, and Recommendations

This chapter sums up the philosophical, methodological, and empirical progression of this study, which was conducted to examine the association between income, race, and level of mothers' education in decreasing of childhood obesity rate in Broward County, Florida. In addition, the study concludes based on the data collected and analyzed and recommends further empirical works to build on the limitations in the scope of this study.

Interpretation of the Findings

This study was conducted on the understanding that CO remains a global public health concern despite several social, economic, and technological improvements associated with health care in the 21st century. CO is increasing in both developed and developing countries. Populations in developed countries such as England, Europe, Canada, and the United States are increasingly affected by the condition despite food and health services improvements. Though CO has continued to increase in the United States—a development that constantly challenges policymakers, pediatricians, educators, and parents—the state of Florida has had a reduction in CO prevalence, placing the state at 34 of 51 in the 2–4 obesity ranking, as reported by the Robert Wood Johnson Foundation. Hence, this study was conducted to review the reduction in rates of CO in Florida relating to race, income, families, and other forms of characteristics for a precise understanding of the reduction in the phenomena. This effort could allow precise isolations of important factors and variable family management of obesity supporting the reduction trends and how these could be shared on the importance of the social learning

theory. To this end, the following hypotheses were postulated:

1. There is no association between maternal education and the reduction of CO in Broward County, Florida.
2. There is no association between the mother's income and the reduction of CO in Broward County, Florida.
3. There is no association between race and the reduction of CO in Broward County, Florida.

The survey attracted 511 respondents who filled out and returned the questionnaire (see Appendix). Respondents were then introduced to the study consent forms to learn and understand the ethical implications of their participation and consent to the study or otherwise. The 511 returned questionnaires were stored and processed by me using SPSS. SPSS was employed to sort and categorize the collected data for both descriptive (percentages, frequencies, bar chart, pie chart) and inferential (logistical regression) examinations and interpretations. The data presented in Chapter 4 and the results of the test of the hypothesis made in this study led to the rejection of the null hypotheses.

The findings indicated that there is a significant correlation between maternal education and the reduction of CO in Broward County, Florida. The analysis revealed that mothers who attended college/associate degree are four times more likely to have a reduction of CO than mothers who have qualifications below high school, and mothers with bachelor's degree are two-and-a-half times more likely, whereas mothers who have attended some high school or have master's degree or higher are less likely to experience

a reduction of CO than those with qualification below high school.

The finding also showed a significant association between a mother's income and the reduction of CO in Broward County, Florida. The analysis showed that mothers with income between $50,000 to $75,000 are nine-and-a-half times more likely to have a reduction of CO than mothers with income of $25,000 or less, and those with income between $25,000 to $50,000 are four-and-a-half times more likely, whereas mothers with income above $75,000 are equally likely to have a reduction of CO with those that have an income of $25,000 or less.

Further, there is a significant correlation between race and the reduction of CO in Broward County, Florida. It is observed from the analysis that Pacific Islander mothers are 20 times more likely to have a reduction of CO than Hispanics/Latino mothers, Native American mothers are two times more likely, whereas Non-Hispanic Black mothers are significantly less likely to have a reduction of CO, and non-Hispanic White mothers are equally likely to have a reduction of child obesity than with Hispanic/Latino mothers. Finally, there is a significant correlation between mothers' education and the BMI of children in the years under review in Broward County, Florida.

Recommendation for Further Studies

This study has identified the gap in the data available on the tackling of CO in the study area as dependent on race, income, and level of education. While being a preliminary study conceived in quantitative methodology, a more mixed mode (quantitative and qualitative) of research is suggested to expand the front of this study in specific precincts regarding the demographic reduction of the phenomena of childhood

obesity. It is perceived that future adoption of methodological triangulation will help balance and reinforce weaknesses each of the methodologies contains when deployed to such CO.

Policy Recommendations

One of the policy recommendations from the study is Broward County public health administration encouragement of the formation of cross-racial associations of mothers with obese children. This will support networking, advocacy, and social learning for the county's utmost management and control of CO. As this study shows, most of the mothers in the study are younger, whose experiences caring for obese children needed monitoring and reinforcing for the results in controlling obesity in the state. In addition, public health experts in the county should be motivated to develop multiracial programs to enhance community exchanges in capacities to maintain the state of Florida's resilience reduction of CO.

Access to high education remains challenging for many in the United States. Many couples enter into parenthood with limited education and life exposure. Broward County and non-government organizations could strategize for the continuous reduction of CO in the county through the expansion of opportunism and support for both prospecting mothers and mothers of children with CO. The county should also have strategies for improving and reducing the income gap among the population. Care for CO has been documented to be income dependent. Cross-racial families and mothers with assured and adequate income will be adequately ready in the care and fight against CO. Further, Florida could support CO reduction in its counties by incorporating food and

beverage companies in support of the association of mothers of obsessed children toward enhancing cross-racial social learning of care and management of CO.

Implications for Social Change

This empirical study has demonstrated that reductions in CO rates in Broward County, Florida are associated with race, income, and level of education. The study demonstrated the limits of mothers' education to the reduction of CO and the potential for both public/state and private leverage on such to build experiences and programs to enhance community capacity to fight and halt CO in the state of Florida. Where the county depicts a prosperous region in the state of Florida with diverse ethnic coloration, such a tendency can be useful as a control strategy through some well-thought-out policies, programs, and networking, as inferred from the capacity of SLT used in this study as the point of reference.

Conclusion

This study affirms that CO remains a recurrent health phenomenon in the sample studied. Nevertheless, CO in the study area relates largely to the experiences of Hispanic/Latino, non-Hispanic, and non-Hispanic Black mothers. When compared with the experiences of the Pacific Islander and Native American mothers, the within-race and racial justify the need and efficacy of SLT as a frame that could be explored in networking toward control of CO in the state of Florida and beyond. In addition, a diverse level of education qualifications among mothers with CO remains an explorable resource to leverage in the fight against CO.

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Appendix: Participant Survey

Participant Survey

Thank you for agreeing to participate in this study. Please return this questionnaire to me as soon as you can. Your responses are confidential and will only be used in my dissertation research. Your completion of this survey serves as your informed consent.

1. Please choose your age group.
   - □ 20-25 years old
   - □ 26-30 years old
   - □ 31-35 years old
   - □ 36-40 years old
   - □ 41 years old or older
2. Please choose your race/ethnicity.
   - □ Hispanic/Latino

   or

   - □ Non-Hispanic Black
   - □ Non-Hispanic White
   - □ Pacific Islander
   - □ Native American
   - □ Other
3. Please indicate the highest education completed.
   - □ Below high school
   - □ Some high school
   - □ High School graduate/GED
   - □ Attended college/associate degree
   - □ Bachelor's degree
   - □ Master's degree or higher
4. Please indicate your income category
   - □ $25,000 or less
   - □ $25,001 to $50,000
   - □ $51,001 to $75,000
   - □ $75,001 to $100,000
   - □ $100,001 to $150,000
   - □ $150,001 or more
5. How many children do you have? _____
6. Has a doctor ever told you that any of your children were heavier than the recommended weight for your child's age?
   - □ Yes **--- Complete Item #7**
   - □ No --- **You are finished! Thank you for participating in the study!**
7. Please indicate your child's BMI for each child that has ever been over the recommended weight for the last 4 years. You may have to obtain this information from your doctor.

Child's Current Age	Child's gender (Male or Female)	Child's Current BMI	Child's BMI 2 years ago	Child's BMI 4 years ago

Thank you for participating in the study!