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Female Caribbean Immigrants' Perceptions of the Influence of Immigration on Obesity

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Abstract

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by

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MBA, University of Phoenix, 2009

BS, Temple University, 2007

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Obesity is a significant global issue, and its incidence has increased over time. A substantial percentage of the U.S. population suffers from this disease with a relatively high prevalence seen in individuals from the Caribbean. The purpose of this phenomenological study was to explore Caribbean women's perception of how migration to South Florida may have impacted the onset of obesity in this population. The social ecological model provided the framework for the study. Data were collected from 1-on-1 interviews held with 12 female participants between the ages of 18 and 35, who previously resided in the Caribbean at a healthy weight but became overweight after migration to the United States. The information collected were analyzed using manual coding to identify 5 themes: consciousness of weight gain, challenges associated with weight gain, factors causing weight gain, attitudes toward weight gain, and efforts aimed at weight loss. Participants reported they felt that migration adversely affected their health by causing weight gain which eventually developed into obesity, caused by a modification to their lifestyle as well as an overall change in attitude towards weight gain. The social change implications of these findings are that they may be used to raise awareness of the risks of obesity among Caribbean immigrant women and to develop interventions to address the issue. Such interventions may result in increased well-being, healthier lifestyles, and prevention of obesity associated morbidity and mortality among this population.

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Chapter 1: Introduction to the Study

Obesity is a disease that affects individuals on a global level. With the migration of Caribbean immigrants on a steady rise, specifically in the South Florida region, this population is also being affected (Choi, 2011). This study addressed the impact of immigration on obese female Caribbean immigrants in the South Florida region from their perspectives. This study addressed a widely underrepresented population in research who suffers from the effects of obesity. Findings may provide a deeper understanding of how obesity is perceived by Caribbean women in this region of the United States. These perceptions are important because they may be used to develop effective obesity control and prevention measures. to increase the health and well-being of this population. This chapter includes an overview of the study, including the purpose, assumptions, limitations, and scope. I also describe the framework used to support the study.

Background

Multiple peer-reviewed articles related to the scope of the study were reviewed. These articles addressed concepts and findings pertaining to the issue of obesity, including gender, migration, and the environment. Kirby, Liang, Chen, and Wang (2012) explored how the racial/ethnic composition of the community can be associated with the risk of being overweight/obese. Kirby et al. found that the built environment characteristics of the community can have an effect on the weight status of the residents. Sullivan, Brashear, Broyles, and Rung (2014) took a different approach by examining the associations between obesity and neighborhood environments among a representative sample of African American, non-Hispanic White, and Caribbean adults. The perceptions

of the physical and social characteristics of the neighborhood were the main factors studied associated with obesity. Lopez, Boston, Dutton, Jones, Mitchell, and Vilme (2014) focused on a different model by examining the causal factors of obesity among African American women. With gender being a key factor in the study, Lopez et al. explored the perceptions and attitudes of African American women in relation to the culture of the population. Choi (2011) provided information on the patterns of obesity of new immigrants in the United States generated from data collected from the New Immigrant Surveys. Choi examined immigrants' length of stay within the country to determine the correlation to obesity. Singh, Siahpush, Hiatt, and Timsina (2010) studied the obesity trends of 30 immigrant groups based on race/ethnicity, length of immigration, income/poverty level, education, and occupation. The duration of residence within the United States was reviewed to assess the association to an increased risk of obesity.

Although these studies shared similar approaches to the current study, I examined areas that were not addressed in previous studies. I filled the research gap by taking a deeper look at the prevalence of obesity among Caribbean women by focusing on the influence of immigration within the 18 to 35 age group.

Problem Statement

Obesity is prevalent in adults in the United States, as more than one-third of the population suffers from this disease (Ogden, Lamb, Carroll, & Flegal, 2010). Choi (2011) identified a relatively high prevalence of obesity in individuals from the Caribbean. The number of Caribbean immigrants in the United States has been on a steady rise over the past years (McCabe, 2011). Individuals from the Caribbean currently account for 9% of

the total U.S. immigrant population, and 40% of these individuals reside in the state of Florida. Within the South Florida region, 30.2% of immigrants are Caribbean and over half are women (McCabe, 2011).

Current literature indicated that immigration may have an impact on obesity rates among Caribbean women, and further research was needed on this topic (Choi, 2011). At the time of the study, there was limited research available that addressed this issue in this geographical region and in this particular population. An increased understanding of this issue may address the gaps that exist in this area of research.

Purpose of the Study

The purpose of the study was to explore the perceptions of Caribbean women regarding the influence of immigration on their weight gain. The research methodology was qualitative with a phenomenological design to explore the women's lived experiences with immigration and weight gain. The findings from this study may be used to develop interventions to reduce obesity in this population. Findings may be used to promote the health and well-being of Caribbean women in the South Florida region.

Research Questions

Research Question 1: What are the lived experiences of obese female Caribbean immigrants with respect to their obesity and the possible role of immigration?

Research Question 2: What kind of impact did migration have on the weight of female Caribbean immigrants within the region?

Theoretical Framework

The theoretical framework for the study was the social ecological model. This model is a variation of Bronfenbrenner's (1979) ecological systems theory, and is used to understand the factors that may influence health and wellness levels of individuals, groups, and populations (Centers for Disease Control and Prevention [CDC], 2013). This model assists in understanding how the surrounding environment affects the population studied. According to the ecological model, individual characteristics and elements of the environment determine health outcomes (Golden & Earp, 2012). Environmental elements include school, workplace, or neighborhoods, while individual characteristics include age, education, biological factors, and personal history factors (Dahlberg & Krug, 2002). Exploring participants' perceptions of these factors may reveal how immigration played a role in obesity. Chapter 2 includes a more detailed description of the ecological model and how it was used to support the study.

Nature of the Study

I used a qualitative phenomenological approach. This approach is used to explain the structure, essence, and meaning of the lived experiences of individuals regarding a particular phenomenon (Christensen, Johnson, & Turner, 2010). The ecological factors were viewed through the eyes of the participants in the study (see Christensen et al., 2010). Phenomenological research allows for the collection of differing viewpoints and reasoning that may exist regarding the behaviors and actions of participants Christensen et al., 2010).

Data were collected from 12 women between the ages of 18 and 35 who migrated to South Florida from the Caribbean and who indicated that they had gained weight since their immigration. The women who satisfied the selection criteria and agreed to participate in the study were interviewed and audiotaped to gather their thoughts and perceptions on the issue. The data were then coded, and the relevant themes were identified to answer the research questions.

Definitions

Acculturation: The gradual exchange of attitudes and behaviors between immigrants and members of the host culture (Delavari, Sonderlund, Swinburn, Mellor, & Renzaho, 2013).

Body mass index (BMI): A measure of body fat that takes an individual's weight in kilograms divided by the height in meters squared (CDC, 2015).

Immigration: The process in which non-nationals move into another country for settlement purposes (International Organization for Migration, 2015).

Migration: The movement of a person or persons across an international border. Migration encompasses any kind of movement of individuals regardless of the cause, composition, or length (International Organization for Migration, 2015).

Obese: A disease determined by body mass index (BMI), which is defined by excess adipose tissue within the body (Ogden et al., 2010).

Phenomenological approach: An approach used to understand the perspectives, understandings, and perceptions of individuals regarding a specific phenomenon (Van Manen, 1990).

Snowball sampling: A type of nonprobability sampling that is based on the judgment of the researcher (Lund Research LTD, 2012).

Social determinants: The conditions in which individuals are born, grow, live, and work, as well as the wider set of forces and systems shaping the conditions of daily life, including social norms, social policies, economic policies, and political systems (World Health Organization, 2016).

Social ecological model: A model used to understand the factors that can influence health and wellness on an individual, group, or population level (CDC, 2013).

Assumptions

I assumed that there were no issues with recall bias as the participants were being asked to recall previous experiences in relation to their weight gain, diet, and migration. I also assumed that the participants responded truthfully. Participation was voluntary, and there were no ramifications for their responses. I assumed that the sample was representative of the population being studied. In addition, I assumed that the criteria developed for inclusion were appropriate and that the individuals involved in the study experienced a similar phenomenon.

Scope and Delimitations

The purpose of the study was to address the influence of immigration on obesity within the female Caribbean immigrant population. This specific focus was chosen because there was no current literature that addressed this topic with this population. The study included the responses received from the sample population detailing their perspectives on the issue. The phenomenological design involved interviews with open-

ended questions, which allowed for dialogue to explore the phenomenon. Although this study focused only on immigration as a contributing factor to obesity, there are other factors that may affect the development of obesity among this population. These factors were beyond the scope of the study.

Limitations

The study was voluntary, and the participants could choose not to answer some of the questions that were asked. This may have limited the richness and depth of the data. Convenience sampling also limited the generalizability of the findings. Another limitation was the methodology used. A qualitative phenomenological study may be difficult to replicate. Some biases that may have been present included the participants not being truthful when responding to the questions, or responding in a matter they believed would be socially acceptable. This potential limitation was mitigated by reassuring the participants that no personal identifying information would be included, which hopefully gained their trust and allowed them to be truthful in their responses.

Significance

This research was significant because added to the literature on the influence immigration may have on obesity among Caribbean immigrant women. The study also provided relevant information regarding the perceptions of the factors that may be associated with the development of obesity. Limited research has addressed this issue within this geographical region and with this particular population.

This study has the potential to contribute to the field by facilitating the development of prevention and intervention measures to address the needs of the study

population. An improved understanding of the obesity issue among Caribbean women may be used to increase the overall health of this population.

Summary

Obesity among the female Caribbean population in the South Florida region is an emerging issue. The study sample include Caribbean women between the ages of 18 and 35. I used phenomenological design to obtain a better understanding of how weight gain is affected by immigration as perceived by these women. Findings may be used by health care professionals to reduce health care costs associated with obesity among this population. In Chapter 2, I review the literature related to concepts and theories addressed in the study.

Chapter 2: Literature Review

Obesity is one of the leading causes of deaths in the United States. In a brief of the National Center for Health Statistics data, Ogden, Carroll, McDowell, and Flegal (2007) noted that obesity contributes to the utilization of health care resources, morbidity, mortality, health care costs, and disability. This is a disease defined by excess adipose tissue, which can be determined by BMI (Ogden et al., 2010). Individuals with obesity are typically at risk for multiple chronic conditions, which can include hypertension, heart disease, respiratory conditions, and diabetes (Ogden et al., 2010). Obesity is not a discriminatory disease, as it has been shown to affect individuals of varying demographics such as age, sex, gender, and ethnicity. Xia and Grant (2013) studied how genetics can play a role in the risk of becoming obese. Xia and Grant found that some individuals were more genetically predisposed to regulate adiposity. This was observed in certain ethnic groups, and differences in obesity prevalence offered insight into how genetic factors contribute to the development of this disease (Xia & Grant, 2013).

In the Morbidity and Mortality Weekly Report, the CDC (2010) labeled obesity as not only a national health threat but also a major challenge to public health. The CDC identified that there were approximately 72.5 million obese adults in the United States, and expressed the need for this issue to be addressed. Healthy People 2010 established a goal for the prevalence of obesity to decrease to 15% nationwide (CDC, 2010). No state met those guidelines, suggesting that prior efforts to address the problem were not sufficient and that a different and more comprehensive approach may be needed (CDC, 2010). The impact of immigration on obesity among the Caribbean population has not

received attention. In this study I addressed the gap in the literature regarding the influence of immigration on obesity in this population. This literature review includes a description of the factors that may influence immigrants in the United States. I address environmental factors and the effects of acculturation, culture, self-recognition, and intervention measures.

Immigrants in the United States

McCabe (2011) identified that, as of 2009, over 3.5 million immigrants in the United States were from the Caribbean, a number that equates to 9% of the population being foreign born, and 90% of these immigrants came from countries including Cuba, Jamaica, Dominica Republic, Haiti, and Trinidad and Tobago. Florida had the largest number of Caribbean immigrants, and 40% of the total number of Caribbean-born immigrants in the entire country (McCabe, 2011). Of the Caribbean immigrants residing in the United States, most were adults of working age in the 18- to 54-year-old age range. Over 53% of these Caribbean immigrants were women (McCabe, 2011). These data showed the importance of addressing this health issue in this population. McCabe noted that this particular population was more likely to live in poverty as 17% lived in households that had an annual income below the federal poverty line. The chapter includes information on how immigration is a predictor of obesity, and how elements such as length of residence in the United States, environmental and social determinants, individual self-recognition, and different approaches to intervention measures influence obesity. The theoretical foundation for the study and the literature search strategies are also described.

Literature Search Strategy

I used the Google Scholar/Google Web search engines and multiple databases including CINAHL, MEDLINE, ProQuest, and SAGE Knowledge to identify resources that were most relevant to the study. Search terms included combinations of phrases such as *immigration* and *obesity*, *factors of obesity*, *Caribbean immigrants* and *obesity*, *US immigrants* and *obesity*, *determinants of obesity*, and *obesity intervention measures*. Broad terms in addition to specific phrases were used to identify a wider range of possible sources related to the subject. These terms included *US obesity rates*, *obesity within the US*, *US immigration rates*, *social ecological models*, and *obesity facts*. Because obesity is a mainstream topic, the identification of relevant information was not difficult. Sources addressing different aspects of the issue were identified and assessed for relevance to the study.

Theoretical Foundation

The application of a relevant model or theory to assist in interpreting the findings is important when structuring a study. Golden and Earp (2012) investigated the application of the social ecological model, a variation of the ecological systems theory developed by Brofenbrenner (1979). Golden and Earp reviewed multiple interventions and programs and identified that this theory was more relevant to interventions that were focused on health-based topics, including nutrition, physical activities, or specific settings. Golden and Earp found that cultural, physical, and environment factors could influence the health of individuals depending on their practices and beliefs. The social ecological model is useful in understanding health-based behaviors as determined by

individuals and contextual factors. This model allows for intervention measures to focus on the intentions and beliefs of the participants, as well as the actions and attitudes of the social networks so that change can be facilitated (Golden & Earp, 2012). The social ecological model can be used to understand the factors that influence the health and wellness of groups or individuals (CDC, 2013). Application of this model in the current study may aid in the development of intervention measures addressing underlying factors influencing obesity.

Kleinman's (1980) explanatory model was also considered for the study. This model addresses cultural competence and the causal factors of disease (Kleinman, 1980). This model was not used because of its limited scope in assessing the factors associated with the incidence of the disease.

Obesity in the United States

Ogden et al. (2007) pinpointed obesity as a consistent problem in the United States because the increasing rates of occurrence. This disease is a consequence of an increase in the consumption of calories along with a decrease in physical activities (Ogden et al., 2007). The problem is more prevalent in the United States because food is readily available and inexpensive. The portion sizes associated with food have increased, and more Americans are choosing to eat outside of the home on a regular basis (Ogden et al., 2007). The development of obesity not only burdens the health care system and expenditures, but it allows for an increased risk of multiple chronic conditions that can lead to disability and mortality (Ogden et al., 2007). Obesity is determined by the calculation of the ratio of an individual's weight in relation to his or her height.

Individuals who have a BMI between 25 and 29.9 are considered overweight; those with a BMI of 30 or higher are considered obese (CDC, 2012). Ogden et al. (2007) also identified the disparities that exist in the development of obesity in the United States as non-Hispanic Black and Mexican-American women are more likely to be obese compared to White women. There were no significant differences associated with obesity prevalence among men based on a racial or ethnic groups (Ogden et al. 2007).

Immigrant Obesity and Length of Residence

The length of stay in the host country may influence the development of obesity. As the levels of acculturation increase, so does the adoption of lifestyles of the host country (Choi, 2011). Choi (2011) looked at the prevalence of obesity among new immigrants in the United States. Choi distinguished participants by place of origin using the New Immigrant Survey. The results showed that more than 45% of the new immigrants were obese or overweight, with a higher percentage found in Latin/Caribbean immigrants. These individuals were women, older individuals, and those who had a longer period of residence in the United States (Choi, 2011). Choi did not identify the factors influencing the development of obesity across subgroups. Also, Choi grouped participants into place of origin using very broad categories that did not include the country of origin.

Singh et al. (2010) focused on obesity among multiple immigrant groups. Singh et al. examined the prevalence of obesity according to length of immigration, income level, education, race/ethnicity, and occupation. Similar to Choi (2011), Singh et al. found an increase in the risk of obesity as the duration of residence in the United States increased.

Although the goal of this study was to identify the social class groups and immigrants most affected by obesity, Singh et al. did not address the prevalence of obesity within the Caribbean immigrant population.

Roshania, Narayan, and Oza-Frank (2008), shared a comparable theme, as the age of the arrival of the immigrants were the main factor. The determination whether a relationship existed between obesity and the duration of residence based on the arrival age was examined. The author identified that obesity was more prevalent in those who migrated to the country before the age of 20, as they were more likely, to adopt the ways of the host country (Roshania et al., 2008). Immigrants from Latin America and the Caribbean were more prone to obesity development, as they reported a higher rate of dietary changes. A similar concept used in this study was the utilization of self reported data and noting the dietary changes after migration as an exploratory factor (Roshania et al., 2008). Regardless of the similarities, this study lacked the association of obesity and length of residence on gender. It also did not address the other possibilities and reasons as to why obesity was developed, as dietary changes were the main focus of the study. Though these studies only analyzed the association of length of stay to obesity, a more detailed review was completed, as studies that explored the possible reasons for this outcome was evaluated when factors such as acculturation, culture and obesity were assessed.

Acculturation, Culture, and Obesity

When looking at immigrants within the United States, culture was a consistent recurring factor that appeared to have a dramatic effect in determining the risk for the

development of obesity. Culture was defined as the beliefs and or customs of a particular group, place, society, or time; while acculturation is the gradual exchange between the original attitudes and behaviors of immigrants and that of the host culture (Culture, n.d), (Delavari et al., 2013). Culture in itself, played into the multiple levels of acculturation, as it was identified in various studies, that the longer the individual resided within the US, the more likely they were to develop obesity as they adopted the host culture over time. Delavari et al. (2013), completed a comprehensive review of evidence based studies, that looked at the presenting relationships between obesity and not only the levels of acculturation but those levels based on immigrants who migrated from low to middle-class countries to those that are high income. The study reflected a positive association between a higher acculturation and BMI, as the length of stay increased, the host culture promoted a more unhealthy weight gain than the originating country (Delavari et al., 2013).

Choi (2011), also made similar determinations, as he also concluded, that not only did the level of acculturation have a part to play in the development of the risk for the disease, but the specific place of origin may be a large, influential factor as well. Singh et al. (2010), followed suit as the different acculturation levels were specifically identified based on ranges of length of time and identified within the study. The study established that there were differences in the rates of obesity for those who were US born, as opposed to immigrants who resided within the country for various durations of time. All of these studies also identified that nutritional transition, which is a change in diet, was a primary factor for many of these immigrants. A significant change in the diet was recognized,

along with an increase of high-fat foods, in conjunction to an increase in a sedentary lifestyle (Choi, 2011), (Delavari et al., 2013), (Singh et al., 2010).

A qualitative study facilitated by Lopez et al. (2014), looked specifically at the African-American culture, and their first-hand perceptions of obesity. Even though she did not focus on immigrants, Lopez touched on topics, that were also applicable to the immigrant population and their specific culture. Culture can play a key role in obesity development as it can directly affect the knowledge, perceptions and attitudes in regards to eating, weight status and certain activity behaviors. Within the study, in-depth interviews were conducted first-hand, with several participants, to identify the possible causal explanations of obesity across multiple weights of women of the African American ethnicity. Lopez et al. (2014) identified that there were vast differences in not only weight definitions but in the determinations of healthy weight status. This is an indicator that cultural obesity perceptions can play a huge role in not only different ethnicities, but the immigrant population as well, as this health based issue, can be a gauge on how these individuals will address the issue (Lopez et al., 2014).

Environmental Determinants of Obesity

Ade et al. (2011) conducted a study, which utilized research methods similar to those used within the current study. Web-based surveys were used, in addition to snowball sampling, in order to attain the necessary data first hand from the participants. This study also used a socio-ecological model as the theoretical framework, so that the relationships, which exist between the individuals and their environment can be recognized (Ade, Rohrer, and Rea 2010). The goal was to identify if there was a higher

risk of obesity development for African American immigrant adults, as opposed to African American non-immigrant adults. It was determined; that immigrant status and level of income were not directly associated with the risk for obesity while individuals who consumed alcohol frequently faced increasing risks. These conclusions contradicted other studies, which directly correlate these factors with the risk for the development of obesity (Ade et al., 2010). Although there were some similar aspects, this study was lacking, in that it included additional controlling factors such as drinking and income and did not focus on gender or country of origin for the immigrants.

Sullivan et al. (2014) took a different approach than that of Ade et al. (2010), in that the relationship between the environments of the neighborhood was viewed to identify associations to obesity. Their samples included Afro-Caribbean, African American and Non-Hispanic White adults (Sullivan et al., 2014). This study was completed based on the perceptions of the physical and social characteristics of the neighborhood. The results determined that in ethnically diverse neighborhoods, the provision of open space areas such as parks and playgrounds, as well as the involvement in different clubs and activities had a positive correlation to the development of obesity among these individuals (Sullivan et al., 2014). Although this study focused on people with a Caribbean background, the associated countries of origin were not identified. This caused the determinations made generalized and non-specific. It also did not further define the neighborhood levels, leaving room for general assumptions about how the neighborhoods were perceived.

Kirby et al. (2012) studied the association between racial and ethnic composition within the community and the risk of obesity. They collected data on individuals identified as Black, White, Hispanic and Asian, to further identify how the ethnic makeup of the community can be a predictor of obesity. They wanted to determine if there was indeed an association between the two and questioned whether the racial or ethnic identity of the individual would make a difference. The overall findings of the study, determined that along with the built environmental characteristics of the community, which is related to the ethnic and or racial makeup of the individuals, there can be an effect on the weight status of the residents within the community (Kirby et al., 2012). The study was very general and did not look at other factors such as the levels of acculturation for the individuals, originating countries of the study participants or the specific identifying characteristics applied to each neighborhood. These included just a few of the presenting limitations.

Self-Recognition of Obesity

One of the main problems with the obesity issue is the determination of how it is perceived by those who are directly affected, and whether or not these individuals even acknowledge the disease. Sivalingam, Ashraf, Vallurupalli, Friderici, Cook, and Rothberg (2011) completed a cross-sectional self-administered survey to individuals of multiple races and explored the awareness of obesity and the associated health risks. Previous studies have suggested that weight misconceptions stemmed from the differences in race and/or ethnicity, but has not assessed the personal awareness factor (Sivalingam et al., 2011). The data showed that even though most of the study

participants were fully aware that obesity was an important health problem, there were differences in self recognition of the disease. Self awareness was identified as the highest in White respondents, intermediate in the respondents who were Hispanic, and the lowest in African-American participants. The latter two ethnicities had a great significance of being less likely to recognize their levels of obesity (Sivalingam et al., 2011). Sivalingam et al. (2011) also suggested that obesity might be less likely to be recognized, if there is a high prevalence of it within the said ethnicity, as the issue is interpreted as part of the norm. This directly related to the socio-culture, which would have an enormous impact on the individuals and their overall health.

Winston, Caesar-Phillips, Peterson, Wells, Martinez, Chen, Foster, and Charlson (2014) took a different approach to this concept of self-recognition and reviewed whether there was a knowledge base of the health consequences of obesity among Hispanic and Black adults. The results of the study indicated that there were a high percentage of participants who were aware that obesity could lead to additional presenting issues; such as hypertension, sleep apnea, arthritis, high cholesterol and diabetes. In addition to this, the study also showed that there was no significant association with knowledge of the consequences and a decrease in weight for the participants. There were also many participants who were less aware that breast cancer was a risk for the development of obesity (Winston et al., 2014). This study confirmed that although individuals may be aware of the disease and its consequences, it does not mean that their actions and behaviors would change, so more effort should be taken to look into additional measures that can be done to facilitate change among the identified population.

Looking further into the concept of self-recognition, Burroughs, Nonas, Sweeney, Rohay, harkins, Kyle, and Burton (2008), examined the association between self-reporting of comorbidities and the self-rating of health among African American and Hispanic adults. A total of 56% of African Americans and 34% of Hispanics identified themselves as slightly overweight but, in reality, fell within the obese category (Burroughs et al., 2008). Although individuals of both ethnicities reported multiple comorbidities, both sides still reported that their overall health was in good to excellent standing. This showed, that even if individuals may be in ill health, some ethnicities tend to have a more optimistic view on not only their health status, but on their weight status as well (Burroughs et al., 2008). This study reflected the opposite of what was determined by Winston et al. (2014), as even though the individuals were knowledgeable on their weight and comorbidities, they still were oblivious to the negative effects and consequences these ailments could have on their health overall.

Immigrant-Based Obesity Intervention Measures

One primary factor, that was prevalent within all the studies analyzed, was the need for more specific culturally geared intervention measures, that would apply directly to the affected population at hand. Time has shown that generic based interventions have not been effective in addressing obesity among some demographics within the population, so more awareness needs to be placed on not only the type of intervention measures developed but who it would apply to within the population. Renzaho, Mellor, Boulton, and Swinburn (2009), looked at this, as studies were reviewed to identify if interventions tailored to specific groups of immigrants, actually facilitated a decrease in

the development of obesity and its associated risk factors. The study was very beneficial, as it was able to determine that not all intervention measures done were successful, as many were ineffective and of poor quality. The interventions that were effective, all had similar factors in that they applied a cultural competence within the framework, as well as a cultural leverage (Renzaho et al., 2009). The identified participants within the communities were used to set the social structures, as well as to define the specific strategies needed to address the culture based factors and mold the intervention on the whole. The interventions that personalized the cultural needs of the target population by concentrating on the attitudes, beliefs, and cultural norms, all while utilizing culturally relevant educational tools showed better outcomes (Renzaho et al., 2009). Overall, Renzaho et al. (2009), was able to stress the importance that intervention content was more important than the duration or the venue of the study taking place. It was also apparent that there was the potential for a positive impact once the cultural norms were incorporated into the program and it is taught in a method and language the participants are more comfortable with.

Summary and Conclusions

Gaps have been identified within many of the current studies within the field. The thoughts and perceptions of the individuals who were directly affected by this disease were not addressed regarding what they thought was a predictor of the disease. The majority of the researchers were able to determine that there was an obesity issue, particularly among women, as opposed to men and racial/ethnic differences played an important role. This occurrence can be dependent on culture, as well as the length of stay

in the host country. Regardless of this, women of Caribbean background, who particularly live within the South Florida geographic region, have been grossly under-represented in research. It was apparent, that many angles were taken in obesity studies, on the whole, but only when it is comprehensively addressed, can any form of change be facilitated nationwide. My proposed study would promote awareness regarding these issues currently faced by this particular population, and has the potential to draw attention to these matters so that individuals who may be migrating can be armed with the knowledge needed to help prevent the occurrence of the disease. In Chapter 3, I describe in detail the methodology that was employed in this study in order to contribute to closing the gap in the literature on immigration among female Caribbean women and obesity.

Chapter 3: Research Method

The purpose of the study was to explore the perceptions of Caribbean women between the ages of 18 and 35 who reside in South Florida regarding how immigration may have affected their weight gain. Understanding how weight gain is affected by immigration as perceived by participants in the study contributed to the knowledge base regarding obesity in this population, and addressed the gap that existed in this area of research. The purpose also included identifying possible solutions to address the issue. In Chapter 3, I describe the methodology used in the study, including the research design, role of the researcher, ethical procedures, and issues of trustworthiness. I also describe the instruments used to collect data and how data were analyzed.

Research Design and Rationale

The study focused on the lived experiences of obese female Caribbean immigrants regarding the possible influence of immigration on weight gain. The first research question was the following: What are the lived experiences of obese female Caribbean immigrants with respect to their obesity and the possible role of immigration? The second research question was the following: What kind of impact did migration have on the weight of female Caribbean immigrants within the region?

I used a qualitative phenomenological approach to explore participants' perceptions. This type of research is used to understand not only the participants' perceptions but also their perspectives regarding the phenomenon (Van Manen, 1990). Through exploration of the lived experiences of these individuals and their interpretation

of the obesity problem, I provided a better understanding of the influence of immigration on obesity.

Role of the Researcher

The role of the researcher is objective observer of participants and moderator of the interviews to gather data (Simon, 2011). My role in this study was limited to the interview facilitator. There were no personal or professional relationships between me as the lead researcher and the participants. Subjects were randomly chosen from a variety of locations in the community using snowball sampling.

No power relationships were present in this study. Researcher bias was managed by remaining neutral when interacting with participants, facilitating interviews, recording responses, and analyzing data (Focus Group Tips, 2012). Maintaining integrity with the collection of data allowed for an unbiased study. I used an informed consent form to ensure participants were aware of the purpose of the study and what was expected of them. I provided a small token of appreciation for their participation. All data were kept confidential to ensure that no personal identifying information was revealed when reporting the study findings. Ensuring confidentiality enabled participants to be honest and sincere in their responses.

Pilot Testing

A pilot test was conducted before the main study. Three participants were recruited by face-to-face solicitations and asked a series of questions that were developed for the interview process. An informed consent form was given to the pilot test participants. The data were collected and coded by me and recoded by my research

assistant to verify their validity. The participants used for the pilot study, were not included in the main study, and data collected in the pilot study were not included in the main study. The pilot study gave me the opportunity to determine whether the interview questions would elicit data needed to answer the research questions and whether the interview protocol would be effective for the study.

Methodology

Participant Selection Logic

The population included obese or overweight Caribbean immigrant women who reside in the South Florida region of the United States; this region includes West Palm Beach County, Broward County, and Miami-Dade County. Eligible participants were women between the ages of 18 and 35 who were at a healthy weight before migrating and who became overweight after residing in the United States for a number of years. To be classified as overweight, the participants needed to have a BMI of 25 or higher. Their length of residence in the United States was assessed by their responses to questions placed in the initial criteria survey (Appendix A). Eligible participants must have resided within the United States for at least 2 years. A total of 12 women were recruited to ensure that rich and dense data would be collected. The sample size was determined by recommendations from Creswell (1998) and Polkinghorne (1989) that phenomenological studies include a sample of five to 25 participants. Participants were recruited via announcements made on Facebook, Instagram, and Craigslist. Based on the responses received from the survey participants, I was able to identify those who were eligible for the study. I also conducted face-to-face solicitations to recruit participants in local malls,

parks, and areas known to have a high Caribbean representation. This was a faster method of recruitment, as qualifying participants could be easily identified. Snowball sampling, a nonprobability sampling based on the judgment of the researcher, was used in conjunction with face-to-face solicitations (see Lund Research LTD, 2012). During the solicitations, individuals were asked to participate and asked whether they knew other individuals who would be eligible and interested in participating (Appendix D). I provided my contact information and information on the study in online recruitment pages. After making the decision to participate in the study the individuals contacted me via phone or email so that the screening protocol could be emailed for completion. Upon assessing eligibility for the study and receiving the participants' informed consent I arranged interviews with the participants to gather the data for the study.

Instrumentation: Face-to-Face Interviews

The interview sessions were held privately with each of the 12 participants using a pre-established interview protocol that allowed for open discussions and responses from the participants (see Appendix B). This created the opportunity for extensive dialogue in which the participants had the ability to express themselves and provide details they felt were relevant to the study. I developed the interview questions after reviewing similar studies. This allowed for a comprehensive set of questions to cover the areas that needed to be addressed. The questions included general obesity-related questions and more personal questions that allowed participants to describe their personal experiences with this issue. All of the information collected can from firsthand accounts. The sessions

were audiotaped to ensure that no information was missed or misconstrued and the data were reliable and valid.

Archived Data Sources

Additional data were gathered from state databases regarding obesity rates of the particular population. This information was collected from reputable sources including the Florida Department of Health, Miami-Dade County Health Department, Broward County Health Department, and Palm Beach County Health Department. In addition to examining state-sponsored information, I conducted interviews to identify the lived experiences of participants regarding the influence of immigration on obesity.

Procedures for Recruitment, Participation, and Data Collection

Data was collected via one on one interviews for both the pilot, as well as the main study. To recruit participants for both studies similar methods were used which included myself going out into the community to solicit participation at a variety of locations and venues such as parks, local events and the malls. Different internet forums were also utilized in order to recruit eligible participants. I adhered to these participation solicitation methods as many times as needed and as long as needed to ensure the exact sample size. Handwritten notes were taken, as well as an audio tape recorder used to record any and all information collected. When more participants were needed during the initial process, then the collection procedures were repeated of the face-to-face solicitations and internet based surveys until all participants were received. The interview was automatically scheduled with the individual once they had been identified as an eligible participant. The overall interview process took approximately one hour and was

held at a location that was convenient to the participant such as a nearby library so that an uninterrupted interview could take place between the participant and myself.

At the conclusion of the interviews, the participants were debriefed in regards to when the results of the study would be available; they received my contact information, as well as a document listing a general overview of the study and the effect their participation may have had on the study as a whole. Any additional questions and or concerns from the participants were also addressed at this point of the study so that they left feeling well informed on what took place and the follow up measures if necessary. I ensured that all the necessary information was gathered and nothing was left out. This prevented any additional follow up to be needed as extra measures were taken to ensure that all the necessary data was collected for the study. At the completion of the study the results would be shared with the participants via email and will include a brief summary of the study results as well as the findings.

Data Analysis Plan

The data collected was analyzed using codes and themes that created a connection to the research question asked. An inductive analysis was used to allow categories, themes or patterns to be developed from the bottom up. These themes were then formulated into patterns and generalizations based on the personal experiences of the participants which was collected (Creswell, 2014). I manually coded all the information collected from the interviews that were done on the participants utilizing an open coding process. This level of coding looks at specific categories and concepts within the data, allowing it to be broken down into first level concepts, master headings and second level

categories or subheadings (Biddix, 2009). As a validation step, the research assistant also coded the information received to ensure that similar results are attained, and results are indeed valid. In the event there were discrepant cases, the audio recorder would be reviewed to verify that the information extracted was corrected. The NVIVO software was also used as a mechanism to organize all the data collected during the study.

Issues of Trustworthiness

Ensuring trustworthiness throughout the study is an important factor that was a major focus. Guaranteeing the credibility of the study was to establish that the results collected from the participants were not only valid, but also reliable. The usage of multiple approaches or methods in order to gather the necessary data and ensure that the findings that were found were valid, is a process known as triangulation of the sources (Bryman, 2004). This measure was also used to ensure trustworthiness within the study. This looked at the consistency of the data gathered from the participants, as well as two other sources to verify its validity. Reviewing existing literature and research studies with similar concepts and theories and comparing their data and results with the results attained from my study was done to complete this process. An additional analyst was also used to review the determined findings in order to further assure validity of the data. The transferability of the data was maintained by the variations in the selection of the participants. The participants were recruited through various avenues and different locations within the region. This ensured that an adequate number participants were attained who all fell within the established study criteria. To test the dependability of the information collected, all of the processes completed was reported in full detail, allowing

for the work to be repeated by any researcher if need be and the same and or similar results attained. The confirmability was also done in a similar manner where the researcher documented all the procedures and steps taken to check and recheck the information throughout the study. This would permit data audits that could be done by other researchers to make judgments as well as identify if there were any potential for bias in the data collected. Another important function completed throughout the study was inter-coder reliability that entails the research assistant re-coding all the data to prove the reliability of the results attained. Comparisons were done on the results attained from myself as well as from the research assistant to confirm consistency. This assisted in establishing both the comprehensiveness and the trustworthiness of the findings of the study.

Ethical Procedures

I ensured that ultimate ethical measures were enforced throughout the duration of the study specifically when handling the participants and the information collected from them. Participants were recruited on a voluntary basis with full details through informed consent of the study given to assure that they are fully aware of what the study consists of as well as what their participation entailed. Written consent forms were used to get the individual permission of the participants, which further documented their understanding of how they participated as well as how the data that was collected from them were used.

The participants involved in the study were voluntarily requested to answer questions asked of them in an interview by the researcher. There were no experimentations or testing done on participants within this study. To further gain the

trust of the participants a copy of a signed confidentiality agreement from the researcher was provided to reassure them that the information being collected will be kept private and will not be shared or publicized anywhere. The participants involved in the study were allocated a participant number so that no personal identifying information was needed and the information collected was kept private. In the event a participant refused to continue the study then any information collected from them were destroyed so that none of the previously collected information were used within the study. At that point, extra study participants were attained to stay within the established sample size. Participants were collected randomly to avoid any types of conflict of interest, and no form of incentives were allocated for the participants within the study. However, a token of appreciation for participation was given. No personal participant information was collected during the study, and any personal identifiers, which may have presented themselves during the course of the study, was removed. The research assistant, committee members and myself were the only individuals with access to all of the data collected. The information will be kept for at least five years on an external storage device as well as a cloud based storage file where all the corresponding individuals can have secure access if need be.

Summary

With the research design and the role of the researcher fully identified the audience can have a better understanding of what the study entailed. This study utilized participants who were selected randomly to avoid any potential bias that may have been present. A pilot study was also completed to ensure the effectiveness of the study and that

all the important details and concerns were addressed before the commencement of the main study. Utilizing the interview protocol and myself as the data collection instrument ensured that the responses collected was valuable information which was relevant to the study making the results beneficial for analyzation. With these measures in place, in addition to ensuring that the study was being conducted in a fully ethical manner guarantees the validity and the credibility of the data collected. I provide more in depth information about the data collection process and measures on how it was analyzed to derive to the results of the study in Chapter 4. With this information, the research question was then addressed and the determinations made on the overall outcome of the study.

Chapter 4: Results

Exploring the perceptions of female participants on how weight gain can be affected by immigration was the main purpose of this study. I addressed the gap that existed in this area of research by providing a further understanding of this issue. The first research question was the following: What are the lived experiences of obese female Caribbean immigrants with respect to their obesity and the possible role of immigration? The second research question was the following: What kind of impact did migration have on the weight of female Caribbean immigrants within the region? In this chapter, I report the study findings including details regarding the demographics of the participants, the data collection process, the data analysis, and issues of trustworthiness.

Pilot Study

I conducted a pilot study approved by the Walden IRB #: 01-17-17-0356726 using the same research instrument with three participants who were similar to participants in the main study. The pilot study was completed approximately two months prior to the commencement of the main study to test the recruitment methods, interview questions, and interview protocol. I recruited three participants via face-to-face solicitation using a screening protocol to determine whether they were eligible for the study. After verifying their eligibility, I scheduled a date and time for the interview at a local library. I gave the participants my contact information in case they had questions regarding the study or needed to cancel or reschedule the interview. I audiotaped the interviews and transcribed the recordings before determining that no changes would be needed for data collection in the main study.

Setting

The interviews for the main study took place in private rooms at local public libraries. The rooms in which the interviews were held varied based on availability for that day and time. The locations of the rooms ranged from secluded and quiet to centrally located with a lot of audible background noise. The latter location did not impose on participants' privacy because the room was private and I was able to maintain their confidentiality. I was not aware of any personal or organizational issues, such as conflicts within the home or workplace, that may have influenced the participants during the study.

Demographics

I recruited 12 female participants between the ages of 18 and 35 with a mean age of 31. These participants had to have previously resided in the Caribbean, where they were at a healthy weight, and had to have become overweight after migrating to the United States. Participants' weight prior to immigration was a self-reported estimate because I could not objectively measure this. The Caribbean countries of origin for participants included Jamaica, Dominica, Trinidad and Tobago, and Bahamas. The participants include 10 Afro-Caribbean and two Indo-Caribbean women. Afro-Caribbean women identified as having African lineage while Indo-Caribbean women identified as having East Indian lineage. Those who had a BMI of 25 and above were considered overweight or obese (See Table 1). I determined the BMI based on the participant's current weight and height, which was self-reported. Participants had to reside within the tri-county areas of South Florida, which included Broward, West Palm Beach, and Miami-Dade County, to participate in the study.

Table 1

Selected Demographic Characteristics of Female Study Participants

Country of Origin	Ethnicity	Age	Height	Weight	BMI	Weight classification at time of Interview
Bahamas	African Caribbean	34	5’7	194	30	Obese
Dominica	African Caribbean	31	5’4	175	30	Obese
Jamaica	African Caribbean	33	5’6’	190	30	Obese
Jamaica	African Caribbean	32	5’8	219	33	Obese
Jamaica	African Caribbean	35	5’4	190	32	Obese
Trinidad & Tobago	African Caribbean	30	5’6	180	29	Obese
Trinidad & Tobago	African Caribbean	23	5’6	22	36	Obese
Trinidad & Tobago	Indian Caribbean	28	5’6	190	30	Obese
Trinidad & Tobago	African Caribbean	35	5’5	170	28	Overweight
Trinidad & Tobago	African Caribbean	30	5’6	185	29	Obese
Trinidad & Tobago	African Caribbean	32	5’6	175	28	Overweight
Trinidad & Tobago	Indian Caribbean	35	5’4	220	38	Obese

Data Collection

I collected data from 12 participants, not including the initial three individuals who participated in the pilot study. I recruited six participants via face-to-face solicitation, four participants via snowball sampling, and two from an ad placed on Craigslist. The data I collected from the interviews consisted of handwritten notes and audio recordings of one-on-one interview sessions. Prior to the start of the interview, I

gave the participant 20 minutes to review the written informed consent and ask any questions. The average interview time was 45 minutes excluding the prep time. At the conclusion of the interview, I debriefed the participants regarding confidentiality and what should be done if they wanted to receive a summary of the findings. Participants were then given a $5.00 Amazon gift card as a token of appreciation for participating in the study.

Different rooms were used to facilitate the interview based on availability at the library. The dates also varied based on the availability of the participant. I began collecting data in July 2017 and completed my data collection process in November of that same year. Saturation was reached at the 12th interview, at which time data collection was concluded. Audio recordings were reviewed to ensure they contained no identifiable information and were transcribed by me within 3 weeks. There were no unusual circumstances that occurred during data collection. The only variation in the data collection process was the use of one Internet forum for recruitment of participants, as opposed to multiple options.

Data Analysis

I used multiple stages of data analysis to develop the themes. After the data were transcribed, the transcripts were organized and reviewed in their entirety for a macro view. I used an open coding process in which I examined each line of text in the transcript and applied a code. I repeated this line-by-line coding process until all relevant lines of text were coded. The data were then uploaded into the Nvivo 11 where the manual codes were used to analyze the data. I conducted inductive analysis in which

similar phrases were grouped into categories and relationships between categories were identified. The patterns were examined to determine the recurring themes. My research assistant also conducted an open coding process using Microsoft Word to confirm my results. We compared the codes and themes to ensure that the results were reliable.

I identified five major themes from the data:

1. Theme 1: consciousness of weight gain (change in body structure, clothes not fitting, increase in pounds),
2. Theme 2: challenges associated with weight gain (difficulties in finding clothes, health risks, low confidence),
3. Theme 3: factors causing weight gain (being away from family and friends, taking care of children, differences in food preparation between United States and country of origin, difficulties in accessing exercise opportunities, availability of fast food, work schedule, high cost of healthy food, and differences in the level of activity between United States and country of origin),
4. Theme 4: attitudes toward weight gain (weight gain is acceptable, weight gain is unacceptable), and
5. Theme 5: efforts aimed at weight loss at community and personal level (increasing level of activity, changing eating habits, creating awareness of weight issues, changing manufacture and sale of food).

Frequency data associated with themes are shown in Table 2.

Table 2

Major Themes and Categories and Frequency of Occurrence per Interview

Theme	Categories	Frequency per interview
Consciousness of weight gain	• Change in body structure • Clothes not fitting • Increase in pounds	12
Challenges associated with weight gain	• Difficulties in finding clothes • Low confidence • Health risks	8
Factors causing weight gain	• Being away from family and friends • Taking care of children • Differences in food preparation between US and country of origin • Difficulties in accessing exercise opportunities • High cost of healthy food • Availability of fast food • Differences in level of activity between US and country of origin • Work schedule	12
Attitudes towards weight gain	• Weight gain is acceptable • Weight gain is unacceptable	10
Efforts aimed at weight loss at community and personal level	• Increasing level of activity • Changing eating habits • Creating awareness on weight issues • Changing the manufacturing and sale of food	10

There were also a few frequently mentioned words such as weight, activities, food, lifestyle, time and eating for which many of the discussions during the interviews were centered. See Table 3.

Table 3

Frequency of Important Words

Word	Frequency	Percent
Weight	300	1.37
Time	290	1.33
Eating	287	1.31
Food	273	1.25
Activities	164	0.75
Healthy	151	0.69

I excluded two cases which were deemed as discrepant or not applicable from the study and the analyzation process. One included data collected from an individual who could not recall any of her prior weight information from the home country and the other was an interviews session which was deemed inaudible after the review of the audio recording. The participant was unable to complete a follow-up interview. This left me with a total of 12 interviews which were analyzed.

Evidence of Trustworthiness

The data collected from the interviews were handwritten, as well as audio recorded to assure the validity of the information collected. I used the Nvivo 11 software as well as the open coding process to code and analyze all the information which was

collected. Credibility was also increased by the use of a qualified research assistant who was familiar with qualitative data analysis and also coded the information utilizing an open coding process to develop similar codes, categories and themes. Transferability was shown in the study by all the participants having similar characteristics which directly related to the research questions. This allows the research to be transferred to other settings as all the specific details and methods used were listed within the study. The research findings were determined to be consistent and could be replicated as this was shown by the research assistant who also coded the data that was collected and attained similar results making the study dependable. This also showed confirmability of the study, as the data was re-coded by the research assistant as a means of inter-coder reliability. Allowing for the confirmation of the results derived, as well as the consistency of the data to be established.

Results

Two of the themes identified from the data collected aligned with the primary research question of the study: What are the lived experiences of obese female Caribbean immigrants with respect to their obesity and the possible role of immigration?

Theme 1: Consciousness of Weight Gain

Within all 12 of the interviews all the study participants mentioned that they were aware of their weight.

Category 1: Change in body structure. Five study participants were aware their bodies had changed as a result of weight gain. One participant stated that her waist circumference had increased and her face was rounder. She had looked at her photos and

most of the weight was around the belly area and around the neck. This showed that the participant was well aware of how a person of normal weight as well as one that was overweight looked. Another participant reported she was obese because she was chubby. While another participant reported her arms looked "wobbly" as a result of weight gain. Quotes from participants are shown below:

- "At the moment, obviously, I'm obese, so I'm not just all chubby. I'm big now so that is unhealthy."
- "My face is looking rounder, like the double chin, the waist circumference increase, clothes not fitting as it used to before and the weight increase itself goes around my arm, belly area, which is something I can't really hide."
- "My weight circumference has increased rapidly around my tummy. Looking at photos back then I am very conscious of the rapid weight gain I've had."

Category 2: Clothes not fitting. Besides body change awareness, clothes were no longer fitting well as stated by five of the participants, showing that they were aware of their weight gain. One participant stated that she previously could fit in any clothing size, but currently, needed a plus size. The participant could not fit into her favorite pair of jeans because of an increase in her waist. Another participant observed being overweight when clothes that fitted regularly were fitting more tightly. Another participant noted when clothes could not fit right that was being fat. Another participant reported after coming to America her clothing size changed and this prompted going to the gym. Quotes from participants are shown below:

- "Back then shopping was easy. I could have fit into any and everything but now I have to go to the plus size"
- "It is my aim to try to fit into my favorite pair of jeans which now cannot fit me because my waist has increased."
- "Then I came to America, I noticed I went up on a little bit but it wasn't a lot, but then it started getting more and more. My size and my clothing changed. That's when I went to the gym."

Category 3: Increase in pounds. All twelve participants reported an increase in body weight after staying in America. One participant mentioned she never knew it was possible to gain so much weight because in her country of origin she weighed 140 pounds but currently she weighs 222 pounds. Another participant reported an increase from 130 pounds to 190 pounds while another reported an increase from 125 pounds to 185 pounds and knew it would be difficult to lose the gained weight. These were just examples as all participants reported having gained weight. Quotes from participants are shown below:

- "Since I've been living in the United States, I've put on weight, I've moved from 125 pounds to 185 pounds, then it's been very difficult to lose weight."
- "Well, I have gained weight tremendously since I have migrated. I've never had problems with weight gain back in my tiny island. Also I never thought it was possible for me to gain weight, this much weight to be even considered fat."

- "When I came, I was much lighter in weight. I was around 145 pounds so that was quite manageable for me. But I guess over the years, I've put on weight gradually and currently I am actually 220 pounds."

Theme 2: Challenges Associated With Weight Gain

Eight of the 12 participants stated that their weight gain posed health and social challenges.

Category 1: Difficulty in finding clothes. It was found after weight gain; four participants had challenges in shopping for clothes. One participant reported before weight gain shopping was easy, but after weight gain, she had to move to plus size. Another participant stated that she could not put on nice clothes because clothes were small sized. Further stating that plus size people were limited in the range of clothing they could buy. Another participant stated having to shop for clothing at the store and dealing with the challenge of not fitting into average sizes. Quotes from participants are shown below:

- "You can't wear nice clothes and when you go into the shop, there's nothing to fit because they're all small-sized clothes."
- "Back then shopping was easy. I could have fit into any and everything but now I have to go to the plus size."
- "You're not able to fit into the average sized clothes or you have to always shop at stores for clothing for larger people."

Category 2: Low confidence. Five participants stated that after weight gain they were not very confident about their image. One participant revealed not feeling pretty and

sexy anymore. She had resorted to eating more as a consolation, which was acting against her weight loss. Another participant noted at her height and weight she was obese and was not feeling good about it. Another revealed she did not like how she looked and she was making efforts to look better. Quotes from participants are shown below:

- "You don't feel as pretty, you don't feel sexy anymore."
- "The more I put on the weight, the more unhappy I become with myself. I'm constantly eating to comfort myself."
- "I think I'm obese for my height. It doesn't really sound good and I don't think I feel good about it."

Category 3: Health risks. Seven participants perceived that they were aware of health risks from being overweight or obese. One participant stated the sole of her feet feeling sore and thought this was due to the weight gain. The participant further noted that excess weight could lead to more complications and reduce life expectancy. Another participant revealed blood pressure and diabetes ran in her family and she needed to be careful. The participant further stated after her brother moved to the US he too became obese and developed high blood pressure and diabetes. Being on medication was an expense and complications would increase medical expenses. Another participant stated her mother was overweight, which led to heart disease that required a pacemaker, and this was a result of unhealthy eating. Quotes from participants are shown below:

- "Excess weight can lead to all kind of complications. It can even reduce my life expectancy and increase other forms of health conditions."

- "You'll soon be on blood pressure medication or diabetes medication which, that's in my family, my grandparent's side. I need to be careful."
- "My brother lives in the US as well, he's obese. Since he's been here, he's developed diabetes. So I have to watch out. He's also on high blood pressure medication, and he's just 40."

Two additional themes were identified from the data collected, which aligns with the secondary research question of the study: What kind of impact did migration have on the weight of female Caribbean immigrants within the region?

Theme 3: Factors Causing Weight Gain

All 12 participants discussed their perceptions about the factors that contributed to their weight gain. These factors revolved around the cost, availability and preparation of the food eaten, the difference in the level of activities between the countries and the lack of support from families and friends to promote a better lifestyle.

Category 1: Being away from family and friends. Six participants believed that being away from family contributed to their weight gain. One participant revealed home cooked meals were always cooked when together with family in the country of origin, but in the US because of being alone a take away meal, which is usually an unhealthy option, is taken. Back in the country of origin family members took turns at preparing meals and there was no option for ordering a take away meal. The participant further revealed back in her country of origin even arriving home tired one would find a home cooked meal. Another participant revealed in the country of origin, family members would help with childcare and cooking thereby affording time to exercise in the form of caring for

children. Another participant revealed when her daughter left her home, work pressure denied her the time and energy to prepare a meal or exercise. From what the participants were saying it was clear being with family promoted preparation and eating of home cooked meals. It was also clear in the country of origin, cooking a meal was the norm because take away meals were not easily available. This was in contrast to the situation in the US where lack of time, fatigue and availability of takeaway meals contributed to unhealthy eating. Quotes from participants are shown below:

- "The responsibilities wasn't that tough on us as compared to being in the states where as a single parent, it's hard. You don't have that much family around you to help."
- "In my country, there's so many things I would've been involved in and being around family that could help me with the kids, allowed me more time to be more active and maintain my weight."
- "Yes because then when I was around my family, we all took turns in cooking daily. Even if when I got home I was a bit tired, there would always be food prepared."

It also emerged that being away from friends led to a sedentary lifestyle. One participant noted back in Jamaica she was physically active because most friends were physically active. This was in contrast to the situation in America where people are focused on work and free time is spent with family and running other errands. In America people had different schedules and it was not possible for people to meet at the same time. Another participant noted there was no motivation to exercise when alone.

However, in a group, people can encourage each other to be active. Quotes from participants are shown below:

- "You need friends or you need a group of people that could encourage you to come out and do something to keep your weight down."
- "I had more time to be physically active. I thought it was easier for me and it was more socially acceptable. Most of my friends were also physically active there in Jamaica so that definitely helped me stay active."

Category 2: Taking care of children. Six participants stated that taking care of children and not eating properly and reasonably contributed to weight gain. One participant revealed lack of child care led her to doing night shifts. Night shifts had deprived her of sleep and rest. The participant had to eat at night in order to remain awake. The participant further revealed being a single mom and the only provider forced her to buy food items that were not very good because money had to be stretched. From the conversation with this participant child care had contributed to poor eating habits. Another participant revealed childcare had complicated her life as she was already struggling with work and school. Due to these multiple demands fast food and food requiring less than 30 minutes of preparation was eaten. She noted this made it difficult to lose weight and stay healthy. Another participant noted child care and work left her little time and she preferred to sleep instead of exercising. It was not clear if the participant lacked motivation to exercise or probably there was no energy left. Another participant revealed child care did not leave her any time to cook healthy meals and exercise. From the discussions with participants it was evident child care required time and financial

resources. Due to these demands, unhealthy meals were eaten and there was no time for exercise which contributed to weight gain. Quotes from participants are shown below:

- "Instead of complicating an already complicated life with working, school and children, it's easier to just obtain fast food or meals that are cooked very fast or that don't require more than 30 minutes in preparation"
- "The fact that I'm a single mom has an impact. Being the main provider I stretch money to make it work so sometimes you have to compromise and buy things that's really not good."
- "I work and take care of my kids. I rarely have any time and my hours are short, my days are short. The time I do have I tend to just want to sleep."

Category 3: Differences in growing and preparation of food between US and country of origin. Ten participants stated that there were significant differences in the way food was grown and prepared in the US as compared to their country of origin. One participant noted in her country of origin she planted her own vegetables. Food items such as lettuce, tomatoes, peppers and chicken were grown at home. Therefore the food was organic and she knew what she was eating. This observation reveals that back in the country of origin, the participant had full control over how food was grown so she was confident the food was safe. Another participant noted vegetables like pumpkins and callaloo, a type of green leafy vegetable, were grown in her parents' garden and the chicken was locally reared. The participant further noted pesticides and preservatives were not used. The vegetables and fish cooked was always fresh. The fish was bought from the fishermen on the beach. The chicken was selected from the farm. At the market,

the produce was fresh and there was no risk of hormones having been used. Another participant observed in the US food was greasy and high in fat. However, in Jamaica, cooking was different resulting in less greasy food. The participant also noted although they occasionally ate fast food in Jamaica it tasted differently from the fast food in the US possibly due to all the preservatives. Another participant noted even in the restaurants in Jamaica, food is cooked just like it is at home so it was less fattening. From the discussions with participants it was clear in the country of origin food was grown in a transparent way and it was cooked in a healthier manner. Quotes from participants are shown below:

- "Everybody would sort of like grow your own and we had the local markets which you know, people would come with local produce which was organic."
- "When I was growing up in my country we planted our own vegetables. The food was organic and I knew exactly what I was eating."
- "Everybody would grow their own. We had that sort of community spirit and sharing where people would grow things and share among the community."

Three of the participants stated that the food grown in the US was not transparent. Food was already packaged and there was no sure way of knowing the contents. For example, one participant noted in Trinidad they used coconut milk from actual coconuts but in the US coconut milk is packed in a tin. One participant noted the difficulty of identifying which food items are organic and which are not. For example it was very difficult to know which chicken was free of hormones. Another participant revealed in the country of origin chicken took a long time to mature but in the US chicken were

matured within six weeks and it was unclear what they were being fed. It was determined that the process of cooking in the US resulted in greasy and high fat food. One participant felt the growing and processing methods used in the US resulted in food that was high in saturated fat. Quotes from participants are shown below:

- "In six weeks these chickens are ready to be eaten, so it's what they are feeding them, what they are putting into their system, whereas home we didn't have that."
- "There's not much fresh food here and processed foods are so cheap. All my good eating habits have changed as I started eating out, processed and take away food which is not good for you."
- "Everything I've been exposed to here in this country is mostly higher in fat and greasier. I don't know if it's the way in which the animals are processed, grown or raised but I feel that the everything is more saturated in fat."

Category 4: Difficulty in accessing exercise opportunities.

Five participants stated they had difficulties in accessing exercise opportunities. One participant noted access to a gym was difficult because of high cost and the time required. Another participant reported not being aware of exercise opportunities for adult women. Most activities were for children and she had never heard or seen activities for adult women. It was explicitly stated that it appears as though "children and men are well taken care of." However, there were no specialized facilities catering for adult women. The participant reported having heard about a boot camp for adult women but it costs money and she could not afford it. Quotes from two participants are shown below:

- "Well, not really because I don't think, I ever heard of a place where you have soccer practice for grown people especially women. You mostly see activities for kids."
- "It's expensive to obtain access to physical activity like with a gym. It's expensive and its time consuming."

Category 5: High cost of healthy food. Four participants stated that the high cost of healthy food contributed to weight gain. One participant noted that foods low in calories and high in nutrients were expensive. Furthermore, healthy foods that were low in fat and organic had a history of being expensive. Besides cost, these foods were difficult to find. One participant mentioned that after resolving to live a healthy life finding food grown organically, without chemicals and modifications was a hassle. Even when found the cost was double that of ordinary food items. For example, she could not afford $5 eggs when $2.99 eggs were available. Another participant was doubtful if the food was really organic or it was just labeled organic. From the discussions with the participants it was evident high cost, difficulty in access and doubts over organic food led to the preference for unhealthy food options. Quotes from participants are listed below:

- "I doubted whether it was really 100% organic or it was just labeled organic. I just continue, I always buy food from the local shops."
- "Eating healthy especially from Whole Food stores is very expensive and what you're paying for these foods is double sometimes triple that of Walmart. It's just hard to eat healthy. Hard and very expensive."

- "It's very expensive to purchase foods that are lower in calories and higher in nutrients compared to macaroni and cheese in a box."

Category 6: Availability of fast food. Eight participants stated that fast food was easily accessible and this had contributed to weight gain. Fast food was accessible through easy to cook foods and though many fast food outlets. One participant indicated that fast food is not healthy but it was easier and quicker to access as compared to a home cooked meal. Another participant stated that because of always being on the move they ate a lot of fast food because it was a quick fix. she further noted that fast food was not readily available in Trinidad, but in the US its everywhere and there was no control, it was like abusing fast food. Quotes from participants are shown below:

- "It is tasty, but it's not healthy, I know that, but it's easier and it's just quicker for me to just access the fast food versus me trying to prepare a meal at home"
- "There's more greasy options, more starchy sides versus vegetables and freshly grown food. Fast food is the way to go, it's just more accessible."
- "I don't have a choice because I'm always on the go. I eat a lot of fast food because that's a quick fix."

Category 7: Differences in level of activity between US and country of origin. Eleven participants stated that in their country of origin they had an active lifestyle, but in the US they have a very low level of activity. One participant reported engaging in outdoor chores in her native country, such as washing the car, gardening, lawn mowing, watering flowers and washing the driveway. Besides these chores, she went to the gym and swimming on weekends. The situation was different in the US because there was no

swimming. Another participant reported activities such as netball, football and sports were available to help people keep their weight down in her native country. Besides being available these activities were also free. Another participant reported in the Caribbean they would engage in a 20 minute workout and when this was not possible they would walk up and down the hill. Another participant reported walking to the grocery store or for any other reason instead of driving. Another participant noted the transport system is not very well developed in Trinidad so people would walk long distances. Quotes from participants are shown below:

- "We played a lot of soccer, netball. We were running up and down all the time. I would go to my friend's house and she lived like half a mile away. I would walk to her house because it's not anything like here where you need a car"
- "When I lived in Trinidad we would go swimming, dancing, there were lots of activities. You were quite busy and there were lots of things to do. I wasn't driving so I had to walk to go everywhere.'
- "When I was there everybody did not own a car. The route that the taxis worked did not come on every street so you had to walk or take the bus. We actually walked very long distances to get to where we were going."

The participants also felt that in the US people did not lead an active lifestyle. One participant reported at work they were stuck to a desk and this was not beneficial because it was all about eating and sitting. She further noted in the Caribbean, children walked to school and played games but in the US children remained indoors with their

gadgets. Another participant noted in the US there is not much walking as you are always driving. The transportation system is used when going to school or to the store because it is easier than walking. Quotes from participants are shown below:

- "Here I have a car. There, I didn't have a car so that was a big difference too, because that was a form of exercise"
- "I did track and field, I played volleyball. I did stuff that got me outside my comfort zone, outside of the house. Here I don't do any of that."
- "Everywhere I want to go, I just get in my car and go. I don't think about walking. I don't do that, because here if you actually get to walk, that's exercise and that I don't have time for that. Whenever I'm ready to leave, I just get in my car and leave. It could be one block down the road, I just go because that is how it is here."

Category 8: Work schedule. Eleven participants stated that they felt their work schedule encouraged eating fast food. One participant detailed shift work and working late hours left her too tired to cook and it was easier to have a take away meal. She was well aware that she was not eating in a healthy way and did not exercise. The participant further stated at work there was a gym but it catered for those working from eight to five. By the time she finished working she was too tired to go to the gym. Working during the day was not as tiring as working at night. After completing a night shift the most important need was sleep. Another participant stated life was busy and to earn money you had to work. The participants were expected to earn money for their upkeep and their families. There was no time to prepare a proper meal so something quick like cake was

eaten. A proper meal would require getting vegetables, cutting, steaming, and preparing among other activities. This required a lot of time so it was preferable to buy a packaged meal that is quickly warmed in a microwave. Even the time to sit down and have a meal was not there. Quotes from participants are shown below:

- "Due to my work I get off very late, so I don't have time to eat like a proper dinner. So, I basically just snack on whatever I find."
- "I've got two jobs and that's the difficulty, not being able to exercise because of the two jobs."
- "The fast-paced lifestyle, the responsibilities, the expenses, it's just work, work, work."
- "The work schedules are more rigorous and you don't really have so much time to go home and prepare a meal properly versus grabbing something on the go and feeding your family."

Theme 4: Attitudes Toward Weight Gain

Ten of the interview participants indicated that some cultures accepted weight gain while in other cultures it was unacceptable.

Category 1: Weight gain is acceptable in my native country. Eight of the participants stated that in their culture weight gain was considered healthy or even a sign of wealth. The participants also noted there were some men who preferred fleshy partners. One participant noted a bit of weight was good as it was considered a sign of eating well. While another noted traditionally weight was considered a sign of prosperity, but this was changing, as people like to look like super models. She further noted there

are clothes for plus size people so it is not considered abnormal. Another participant noted being too skinny in the islands is considered as being sick as many times it was associated was associated with illnesses such as HIV and cancer. The participants stated in the islands, men prefer fleshy women over skinny ones. From the discussion with participants it was clear, in the islands weight gain was not considered unhealthy. Quotes from participants are shown below:

- "The way weight is perceived out there, when you're very, very skinny, it's considered an illness or a sickness. It's either attached to HIV or cancer."
- "Men also find women more attractive when they described it as, having more flesh on your body, having more meat on your body. They'd rather have a woman that's bigger rather than somebody who is skinny, then they would be then stigmatized as dating somebody who they think could be ill as well."
- "If you've got a bit of weight, they consider it to be good, that you're eating well."

Category 2: Weight gain is unacceptable in the U.S. Six participants stated that in the US weight gain was frowned upon and at times snide remarks were made. One participant noted that in her country being overweight or obese was more tolerated than it is in the United States. She further stated that there was a lot of pressure to look a certain way from society in the US, so much so that people go through extreme measures like surgery to lose the weight. Another participant stated that the US culture stressed more on physical attributes and how you look as opposed to being healthy. She mentioned that there was such a negative connotation associated with being overweight or obese it

caused individuals to stay within the shadows and not seek help to aid in weight loss. Quotes from participants are shown below:

- "We got an eye-opener when you come here and realize that if you pass 160 pounds or 170 pounds, you're obese."
- "The truth is we push more about how you look than being healthy. That's why people who are overweight don't have the confidence to try to break out of the shadows and say "let me do something different."
- "Up here thousands of people every day go to these extreme measures to get themselves to a certain weight or to a look that makes them feel better based on the pressures of society."

Theme 5: Efforts Aimed at Weight Loss at Community and Personal Level

Ten participants identified the efforts aimed at weight loss from a personal and community level. This theme correlates with both the primary and the secondary research questions.

Category 1: Increasing level of activity. Seven participants felt they needed to increase their level of activity in order to have a healthy weight. One participant reported although she would not join a gym she would do some walking. At work, she would use stairs instead of elevators. This shows the participant was committed to making actual changes that would be beneficial in the long term instead of merely planning. Another participant noted she would be taking the children along to walk within the neighborhood instead of driving. By taking the children along, they would not be an impediment to

exercise; it would also be beneficial to the children. Quotes from participants are shown below:

- "I need to make time for myself to exercise. Even if I have to take the kids with me and we all go walking together."
- "I guess I'll have to go back to square one and try to do some walking around the neighborhood."
- "And I'm just making simple changes, maybe walk a couple flights of stairs up and down. Just simple things. Checking how many steps I make for the day, setting myself a target goal that I should do 10,000 steps for day. Just little things I'm starting with."

Category 2: Changing eating habits. Eight participants were aware of poor eating habits that had contributed to weight gain that they needed to change. One participant reported they would be cutting down the amount of take away meals in a week. The amount of sugar and fizzy drinks would also be cut down and the amount of water taken increased. She would also start growing vegetables such as tomato, lettuce and sweet pepper in flower pots and start preparing meals during off days. Another participant reported during shopping they would buy more vegetables instead of processed food. Another participant reported they would be changing day to day aspects that would improve their health. First, the portion size would be reduced; second the amount of fruits and vegetables would be increased; third more water would be taken instead of sugary drinks.; fourth food would be grilled instead of being fried. Finally, she

would always have breakfast to avoid being hungry and grabbing snacks. Quotes from participants are shown below:

- "Even to be able to start preparing meals on my off days, then I wouldn't have to depend on take away"
- "Maybe if I prepare meals to take to work ill stop eating all that fast food. It can help if I cut back on the sugars and the stuff I eat."
- "Maybe if I make a better plan when I'm doing shopping and stick to the list. More vegetables instead of getting processed foods and quick and easy foods."

Category 3: Creating awareness on weight issues. Seven participants identified that creating awareness would enable people to make right decisions regarding their health. One participant noted regular seminars and lectures on weight gain and obesity could be run in schools. People can then be educated on the dangers of obesity which includes heart disease, stroke, reproductive problems and diabetes. Another participant noted people knowledgeable about gym contracts need to visit neighborhoods and explain how things worked. She also noted somebody knowledgeable in the Caribbean culture and foods eaten there needs to educate people on the healthy and inexpensive food options which are available. Another participant noted a dietician can offer advice and literature on healthy eating. Advice should not be limited to food preparation it should also extend to food portions because overeating would not be helpful. Quotes from participants are shown below:

- "The healthy facilities also can do some educating even in the schools, educating the young children on healthy eating and portion sizes"
- "If you have support groups, in terms of educating people, offering options, looking at healthier options, lifestyle options, that can be helpful."
- "Dieticians could give you advice and literature on healthy eating. Provide you with healthy menus. Because most times, some of the things we eat we don't realize it will contribute to our weight."

Category 4: Changing the manufacture and sale of food. Two participants stated a change in the way food is manufactured and sold was needed. One participant noted although it would take long and not yield much, a legislative change on how food is made is needed. This change was needed because there was a feeling that the food being sold was unhealthy and damaging to our bodies. She felt weight gain and obesity were a threat to the American society. It was the view of the participant that all food should be organic and extra money should not have to be paid to obtain organic food. Another participant observed manufactured food had a lot of hidden sugars, salt, oils and fats that were not healthy. She felt initiatives were needed to engage manufacturers on reducing unhealthy ingredients and accurate labeling of ingredients. With accurate knowledge of ingredients, consumers have no excuse for not making healthy choices. Another participant felt entrepreneurs need to be given incentives to open healthy eating restaurants and established businesses need to be encouraged to offer healthy options. Quotes from participants are shown below:

- “I think it could start even with the factories, the manufacturers with government initiatives helping to reduce the amount of sugars in stuff.”
- “It should fall on the government to change the way how food is manufactured and sold. All food should be organic, I don’t think you should have to pay extra money to have naturally grown food.”

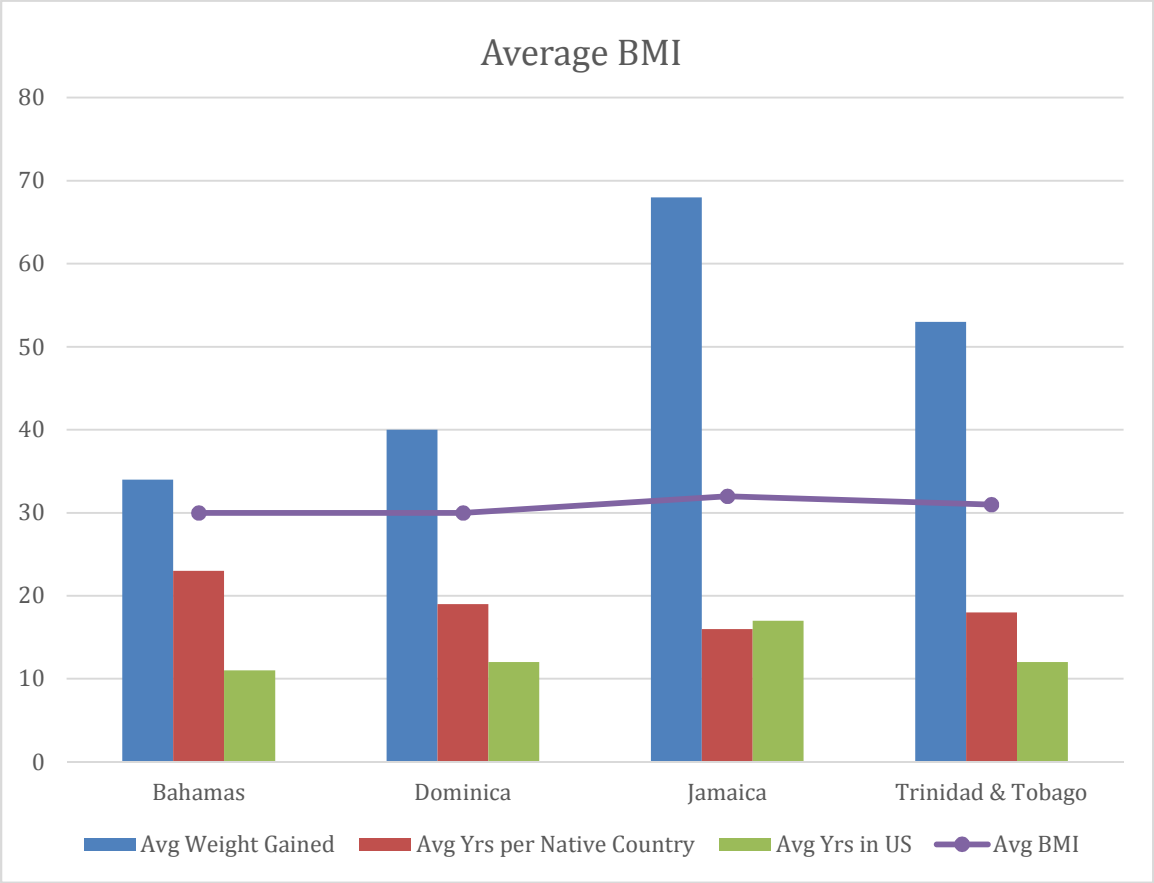

Figure 1. *Average weight gained, average years lived in native country, average years lived in the US, average BMI of female study participants.*

Summary

Participants indicated that there were many contributory elements associated with the increase in weight upon migration to the United States. Most of the participants were very conscious of their weight gain as evidenced by clothes not fitting, a change in body shape and an overall increase in pounds. They were also very cognizant of the challenges associated with weight gain such as the difficulty in finding clothes in larger sizes and the accompanying health risks of obesity. Some participants indicated that they lacked the confidence needed to facilitate the change. These findings were in response to the

primary research question of "What are the lived experiences of obese female Caribbean immigrants with respect to their obesity and the possible role of immigration?" In response to the secondary research question, "What kind of impact did migration have on the weight of female Caribbean immigrants within the region?" participant responses included – easy access to fast foods, their demanding work schedule leaving them little time to prepare healthy meals, low physical activity levels due to work and family duties, overall less than optimal nutrition and being away from family and friends causing stress that provokes unhealthy eating habits. Participants were highly aware of the difference between their native country and the U.S cultural norms and attitudes regarding overweight and obesity, stating that being overweight was culturally more acceptable in their native country.

Participants provided several recommendations for achieving weight loss at a community or a personal level including: Increasing their levels of activity and eating better foods on a personal level and on a community level more awareness needed to be made within the community as well as the availability of reduced cost or free activities and or events geared at improving the health within this specific population. Chapter 5 will include the interpretation of the study findings, limitations of the study, recommendations for future research and a discussion of the potential positive social change impact of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

I conducted this study to explore the perceptions of native Caribbean women who currently reside in South Florida regarding the possible influence of migration to the United States on weight gain. With the limited research available regarding this issue among this population, I completed this study to fill the gap in the literature. Using a phenomenological approach, I explored participants' lived experiences using one-on-one interviews. According to participants, immigration to the United States caused them to modify their lifestyle and change their attitudes toward weight. Participants no longer had the time to engage in physical activities and focus on healthy eating habits. Participants indicated that healthy food options were not as readily accessible as in their home country, that they experienced a lack of motivational support from family networks, and that their weight gain was the result of acculturating into the United States and adopting unhealthy eating habits.

Interpretation of the Findings

Factors Causing Weight Gain

Participants identified multiple factors that caused weight gain and the development of obesity. These factors represented a lifestyle modification. Choi (2011) noted that obesity resulted from the adoption of the lifestyle and culture of the host country. My study confirmed Choi's findings, as many of my participants stated that their overall lifestyle and way of living changed after migration to the United States. They prepared food differently, their activity levels decreased, and their access to healthy foods was no longer easy.

Roshania et al. (2008) found that immigrants from Latin America and the Caribbean were more likely to develop obesity as nutrition changes after migration. My study confirming these findings regarding the development of obesity from changes in nutrition. Diet change, an increase in high-fat foods, and an increase in sedentary lifestyle were themes shared in the studies. Ogden et al. (2007) viewed obesity as a consistent problem in the United States and identified it as a consequence of increased consumption of calories and decreased physical activity. Ogden et al. observed that obesity is more prevalent in the United States because food is readily available, portion sizes are large, inexpensive options are available, and many people choose to eat outside the home. These factors were also mentioned by participants in my study who described the easy access to unhealthy food that contributed to their weight gain. Choi (2011) and Roshania et al. (2008) found associations between length of stay in the host country and age of arrival and the dependent variable of obesity. However, data reported by participants in my study did not confirm these findings.

Attitudes Toward Weight Gain

The attitudes toward weight gain among the current study participants seemed to change after migration. Lopez et al. (2014) found that culture can affect knowledge, perceptions, and attitudes toward weight status, eating, and activity-based behaviors. Cultural perceptions of obesity appeared to play a role in how the participants addressed the issue. Although they were fully aware that weight gain was unacceptable in the United States, they were complacent in taking action to combat the issue; this confirmed

findings from other studies where the new adopted culture within the U.S affected the overall attitudes and behaviors of the participants.

Consciousness of Weight Gain and Challenges Associated With Weight Gain

Winston et al. (2014) investigated the concept of self-recognition by identifying the lack of association between knowledge of the consequences of obesity and decrease in participant weight. This aligned with two major themes in the current study: consciousness of weight gain and challenges associated with weight gain. My findings indicated that although participants were aware of the disease and the associated health risks of obesity, their behaviors did not change in an effort to address the issue.

Efforts Aimed at Weight Loss

Many studies reviewed in Chapter 2 specified the need for culturally specific intervention measures geared toward the target population. Renzaho et al. (2009) reviewed studies which aimed to identify if the occurrence of obesity could be decreased if interventions were tailored to specific groups of immigrants. The study determined that not all intervention measures were successful and the ones which were deemed effective took into consideration the cultural needs of the population. Renzaho et al.'s findings were consistent with those from my study. Participants looked at efforts aimed at weight loss and reported the need for Caribbean-based intervention measures to combat obesity.

My findings indicated that the physical, social, and cultural effects of the environment had an impact on the health of the participants. These results were consistent with multiple levels of influence and risks according to the social ecological model (CDC, 2013). Factors causing weight gain such as lifestyle modification and

environmental influences were viewed through this model to provide a more in-depth understanding of the health behaviors of the study participants. The components of their health and wellness were better understood as the participants were very clear about what they felt contributed to the development of obesity, as well as possible intervention measures that could be employed to address this issue. The intervention measures were identified by the participants, which ensured that the intentions and beliefs of the participants were the focus. Many of the measures identified were geared toward the social networks of that population, which may benefit other members of this community (see Golden & Earp, 2012).

Limitations of the Study

The use of convenience rather than random sampling limited the generalizability of the findings; therefore, readers should interpret the findings with caution. Replication of the phenomenological study may be difficult because the firsthand responses of the participants may differ those in a different population. Another limitation was the truthfulness of the responses by the participants to some of the personal questions asked. There is no guarantee that participants were honest in answering the questions related to their weight. Participants may have responded in a manner that they believed would be more socially acceptable. I attempted to mitigate this limitation by assuring participants that no identifying information would be included in the study. Another possible limitation was recall bias, which is possible in a study in which participants are required to recall health-based information such as their height and weight while in their home country.

Recommendations

Future qualitative and quantitative studies may address members of the Caribbean population who migrated to states other than Florida. In Florida, is private transportation is the norm, which may contribute to the sedentary lifestyles of individuals. In states such as New York, where public transportation is the norm, individuals experience more physical activity walking to the train or bus station, which may limit their weight gain.

Future studies may address other factors that may contribute to weight gain, including age, socioeconomic status, education, and income. A longitudinal study may be preferred to increase the validity of results. A longitudinal study could address the weight changes of participants and the associated factors without relying on the participants' memories. A quantitative study with a large sample could also be conducted to measure exposure and risk for obesity. Using a quantitative approach, researchers could analyze confounding variables and other factors when examining the relationship between immigration and obesity.

Most participants in the current study agreed that basic lifestyle changes were needed, such as changes in eating habits and daily activities. Participants reported a need for interventions such as Caribbean-based weight loss clubs, nutritional courses and seminars, sports groups, and general activities geared toward the female Caribbean population. Additional studies may address the implementation of such programs that cater to this demographic. Researchers may also address the impact of the community and the resources needed to ensure effectiveness.

Implications

The potential positive impact for social change of this study fell on all levels: individual, family and societal. It highlighted the first-hand perceptions of the women involved in the study, to further understand the lifestyle changes that contributed to the change in weight. On an individual level, persons can be made aware of the lifestyle and environmental disparities after migration and be provided the relevant tools needed to prevent this issue from occurring. This requires the involvement of not only the family to aid in the acculturation, but the Caribbean community to provide the knowledge and appropriate resources to ensure that the individual has the necessary tools needed to properly address and or prevent the occurrence of the obesity disease. Public health researchers can use these findings to arm these individuals with the resources needed to provide education on the issue and identify initial measures and steps which can be taken to prevent the occurrence of obesity.

The overall consensus among the study participants was the lack of community-based measures to address the current issue. Education and awareness were continually stressed as being important in order for change to be facilitated. This supports the need for the Caribbean community to become more involved in sponsoring more health based activities in an attempt to reach out to this specific population of women. With the help of public health researchers and practitioners, providing assistance on this community level they can ensure that the measures implemented are relatable to this population. This would not only facilitate a positive reception from the participants but it would also provide a sense of support and motivation for which many of these women lack. These

overall findings that were derived from the study are valuable as they can be used to further enrich the lives of the women and their families, by providing them with measures as well as the resources needed that will encourage a healthier lifestyle.

Conclusion

Participants of this study, Caribbean women, perceived that immigration to the U.S resulted in weight gain leading to the development of obesity. With the factors identified as the main causes for weight change in Caribbean women, it brings to the forefront the overall effects of migration. In addition to these factors, the participants also experienced a change in attitude towards weight gain, as well as identified the challenges they faced as a result of the increase in weight. The women felt that migrating to the U.S. has adversely affected their health and wellbeing by increasing the occurrence of obesity. This highlights the necessity for interventions which are needed, to help these women and their families deal with obesity and assist them in leading a healthy lifestyle that would increase their overall health and wellbeing. Based on these findings, subsequent measures should be taken to develop and implement effective obesity control and prevention measures, as well as allow for more in-depth studies geared at alleviating this health based issue among this population of women.

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Appendix A: Screening Protocol

1. Are you a female Caribbean immigrant who currently resides within the South Florida region? (Miami-Date County, Broward County or West Palm Beach County)
   - o Yes
   - o No

2. Are you within the 18 to 35 age range?
   - o Yes
   - o No

3. In what country were you born?

   (Please write in) _____

4. How many years did you reside within your native country?

5. How many years have you resided within the United States?

6. Did you gain weight after you immigrated to the United States?
   - o Yes
   - o No

   If so, how many pounds have you gained since you immigrated?

   (Please write in) _____

7. What is your current height?

   (Please write in) _____

8. What is your current weight?

   (Please write in) _____

Appendix B: Interview Protocol

Date: _____
Time: _____
Location: _____

Interviewer: _____
Interviewee #: _____

1) Tell me about your experiences with your weight since you immigrated to the United States.
2) What is your current weight and height?
3) What was your weight and height when you resided within your prior country?
4) What do you consider as being overweight or obese?
5) What do you feel contributed to this change in weight?
6) How do your culture and or family look at being overweight?
7) How has work (if applicable) influence your weight gain?
8) How has school (if applicable) influence your weight gain?
9) Why do you think you have gained weight since immigrating to the US?
10) Can you identify what may have been done differently in your native country as opposed to the US, which may have contributed to the change in weight?
11) What do you think can be done to change this?
12) Do you believe your community/environment provides measures to address this issue particularly for individuals within your specific culture?
13) What do you think can be done on a personal level to effectively address this issue?
14) What do you think can be done on a community level to effectively address this issue?