2019

Body Weight Self-Perceptions and Experiences of Nigerian Women Immigrants

Fatimah Binta Ali
Walden University

Walden University

College of Health Sciences

This is to certify that the doctoral dissertation by

Fatimah B Ali

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Review Committee
Dr. Kimberly Dixon-Lawson, Committee Chairperson, Public Health Faculty
Dr. Patrick Tschida, Committee Member, Public Health Faculty
Dr. Vasileios Margaritis, University Reviewer, Public Health Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2019

Abstract

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Fatimah B. Ali

MPH, Southern Illinois University, 2009

BS, Rhodes University, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

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Abstract

Low-income immigrants in the United States experience declining health with increasing length of stay in the country. Their declining health over time has been associated with increased smoking, obesity prevalence, and higher risk for developing diabetes and heart disease. How immigrants perceive their body weight and size, influenced by social interaction, culture, gender, and acculturation is also significant to healthy weight maintenance. Not knowing one's healthy weight could result in body weight misperception and resistance to attaining a healthy weight. The aim of this qualitative study, based on the social constructivist framework, was to understand Nigerian women immigrants' (NWI's) body weight self-perceptions (BWSPs), their experiences with weight changes after immigration, and what it meant to them within their historical, immigration, and cultural contexts. Data were collected from audio recorded interviews of 8 purposefully selected NWIs living in Middle Tennessee. After a process of content analysis of transcribed interviews using NVivo, participants' BWSPs were described and interpreted using hermeneutic phenomenology. The key findings of this research were that participants perceived themselves overweight compared to when they had just immigrated to the United States; believed that age, marriage, change in environment and food contributed to their weight gain; and were not accepting of their weight gain, which led them to eating healthier and moving more in order to lose weight. Findings from this research have social change implications for reducing health disparities by disseminating timely health information accessible to immigrants to educate them about nutrition and physical activity behaviors for healthy weight maintenance.

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Dedication

I am grateful to my parents' who showed me through their own life struggles what constancy and perseverance mean and how far I could come with resolve and focus no matter how long it takes. This is for you Dad and all the sacrifices you made with Mom. Only God will reward you more than I ever will. This dissertation is a product of years of studying and time sacrificed along the way. I am grateful to Carl, my son from whom I took time away. He was an incentive rather than a barrier for coming this far. Dwayne, my study buddy, mentor and husband with whom I argued and debated theories and practice helped me clarify points I wanted to relay in my dissertation. He made it easier at home for he listened to me pour out my frustrations, shared my joy of the process, and exchanged notes with me. Most importantly he is my rock who is there to assist me daily. Not forgetting the communities in which I lived and the current one in Nashville, TN, thank you for giving me the opportunity and trusting me to apply the knowledge from this study for social change. I thank The Almighty for all the opportunities and challenges along the way! Illness, threat from homelessness, divorce and lack of finances would not have prevented me from completing this work by His Grace.

Acknowledgments

My committee chair, Dr. Kimberly Dixon-Lawson is my number one ally in this process. Her understanding the direction I wanted to take the topic helped me lay the foundation at the prospectus stage and beyond. I am grateful for the care, diligence and professional guidance I received from my chair, committee member Dr. Patrick Tschida, reviewer Dr. Vasileios Margaritis, and all Walden University faculty who in each step of the way have shaped my knowledge and skills. I truly felt the faculty cared about the quality of my work. I appreciated Dr. Nancy Rea's prompt actions as the Program Director for the approval of my draft and the Research Coordinator, Dr. Tammy Root, for easing the transition of my research process. Importantly, without my research participants, the women of this study, this research would not have existed.

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Chapter 1: Introduction to the Study

In general, immigrants enjoy better health relative to the U.S. population when they first come to the country, a phenomenon termed the healthy immigrant effect. Some studies have shown health advantages of at least 3 years of additional life expectancy, with black African immigrants (AIs) having more than 7 years of additional life expectancy compared to African Americans (Delavari, Sønderlund, Swinburn, Mellor, & Renzaho, 2013; Singh, Rodriguez-Lainz, & Kogan , 2013; Venters & Gany, 2011). This health advantage, however, is found to decline after 10 or more years of stay in the United States (Oza-Frank's & Cunningham's, 2010). Acculturation, the adoption of a U.S. lifestyle, and neighborhood influences culminating intersect with other factors to increase AIs' rates of overweight, obesity, and diabetes (Delavari et al., 2013). Low income immigrants in particular experience declining health with increasing length of stay in the United States (Williams, Mohammed, Leavell, & Collins, 2010). Their health decline over time has also been associated with increased smoking, obesity prevalence (Venters & Gany, 2011), and higher risk for developing diabetes (Wieland, Morrison, Cha, Rahman, & Chaudhry, 2012).

Important to this study is the phenomenon of body self-perception, where individuals assess their body size, weight, and image, and desire different outcomes based on culture, gender, and age (Dorsey, Eberhardt, & Ogden, 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet, Quinn, & Agocha, 2010; Romieu et al., 2011). How individuals evaluate their body weight influences whether or not they are concerned with weight loss. When individuals perceive themselves to be overweight or

underweight, body weight misperception may occur due to the difference between their perceived and actual weights.

Persistent body weight misperception among sub-populations for whom overweight should be a concern could add to health disparities (Gee et al., 2012; Sivalingam et al., 2011). Prior to this study, no researchers have explored the perspectives of Nigerian women immigrants (NWIs) living in Middle Tennessee regarding their body weights and body weight changes as they transitioned from their countries of origin to the United States. Understanding body weight self-perceptions among NWIs is necessary to deliver appropriate health education and health interventions for the prevention and control of overweight and obesity. There are cultural practices, such as the fattening room practices of the Annang and Efik of Nigeria, if adhered to by the study participants could exacerbate the problem (Oe, 2009). Therefore, given the role of culture in self-identity, I sought to find out if the participants in this study adhered to any form of fattening practice, which could help explain their body weight self perceptions (BWSPs). In addition, existing discourses have been shown in studies among some populations such as African Americans to depict overweight or obese persons positively as "strong," "big-boned," "healthy," and "thick" (Williams et al., 2013). Such descriptions suggest a different perspective about and preference for overweight from the pathogenic definition of health, and western discourse for the preference of a slim body. Therefore, I also analyzed participants' discourses around body weight.

Given the role of culture in self-identity, social interaction becomes significant in understanding BWSP. Based on the concept that people learn from their interactions, I

chose Lev Vygotsky's social constructivism (SC) as the conceptual framework for this study because of its focus on the human meaning making process and the influences from language, culture, and social interaction on learning (Fox, 2001; Kim, 2001; Phillips, 1995; Vygotsky, 1930). Following this concept, individuals make meaning of their experiences and interpret those experiences through their engagement with others in different circumstances (Fox, 2001; Gillette, 1998). Using language and symbols, individuals interpret their experiences as knowledge that is generated as shared beliefs about an object (Gillett, 1998). Therefore, I used a hermeneutics method in data analysis combined with constructivist framework to explore participants' language used to describe their perceptions of body weight.

One of the overarching goals of Healthy People 2020 is to promote health and reduce chronic disease risks through the consumption of healthful diets and behaviors for maintaining healthy body weights (U.S. Department of Health and Human Services, 2013). However, discrepancies between how individuals perceive their body weight and the body weight that they desire could influence behavior related to healthy weight maintenance. Thus, assessing sociocultural beliefs and attitudes related to body size perceptions in the context of immigration can give insights into African immigrants' realities about healthy weight and their nutrition and physical activity behaviors. Knowledge about NWIs' body weight self-perceptions will contribute to health education communication and influence their eating and physical activity behaviors. Because it includes cultural and contextual perspectives, the findings from this research are relevant for community health education since sociocultural beliefs and attitudes guide the design

and contents of targeted educational material and workshops. Using the findings, health educators may develop a targeted health education for sub-populations based on the issues of immigration, history, acculturation, and cultural body weight perceptions to increase awareness of healthy weight maintenance. Timely health education to new immigrants could prevent excess and rapid weight gain. This targeted strategy could enhance efforts to influence nutrition and physical activity behaviors among sub-populations, which has public health significance in the reduction of overweight and obesity. In this chapter, I discuss the study background, purpose of the study, problem statement, conceptual framework, literature review, and the nature of the study.

Background

Self-perception is one's conceptualization of his or her physical self. The knowledge or awareness that one is overweight or obese could motivate the individual to improving those conditions. On the other hand discrepancies between perceived body weight, the healthy weight one ought to be (ideal body weight), or the weight they desire could lead to body weight misperceptions. Studies have pointed to culture, acculturation, ethnicity, gender, and circumstances such as social and economic positions and social interaction as influencers of BWSP (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet, Quinn, & Agocha, 2010; Romieu, et al., 2011). This is so because people are social beings and interact with one another, communicating and transacting in their daily activities creating a culture of shared meaning. Geertz (1973) describes culture as historic and a pattern of meaning that is transmitted and perpetuated through symbolic communication and actions. Static (nationality, gender, biological

traits, religion) and dynamic (political or other beliefs, living conditions, marital status) characteristics of identity affiliations influence culture, shaping people's worldviews. Culture then denotes identity, practices, thinking patterns, beliefs, and attitudes of members of a group. Some authors have cited association between culture, fatness, weight perception, and health status with the length of stay in the United States. Perception of one's body weight and the desire to either be thin or fat could be as a result of individuals adopting the dominant cultural perception that a small body size is ideal and healthy or being fat is equivalent to strength and health (Tiedje et al., 2014; Sussner, Lindsay, Greaney, & Peterson, 2008). By this logic, self-perception, including BWSP, is also a product or by-product of culture.

Self-perceptions of weight and body size also follow social patterning and therefore will differ between cultures, genders and education levels (Dorsey, Eberhardt, & Ogden, 2009; Gillen & Lefkowitz, 2011; Perrin-Wallqvist & Carlsson, 2011). For instance, in the United States, minorities, men, and persons with lower educational levels are more likely to have a weight misperception (Dorsey et al., 2009). Researchers have found that European Americans and Latina Americans in the United States perceived themselves to be thinner than they were and had no desire to be bigger; men's desire to be bigger or smaller varied, and African American males and females were accepting of their size, desiring larger body size (Overstreet et al., 2010).

Researchers have studied ethnic and gender differences in self-perceptions among Mexican women, U.S.-born African Americans, European Americans, and Latinos or Hispanics (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010,

Overstreet et al., 2010; Romieu et al., 2011). While some researchers have focused on in-depth meaning of body weight for U.S.-born African Americans (Ashcraft, 2013; Williams et al.,, 2013), they do not include AI populations in an immigration context.

Research on BWSP sparsely includes NWIs, even when African immigrants are included. In this study, I went further and looked at a sub-group level description and in-depth explanation of the phenomenon of body weight self-perception as experienced by the participants. I reviewed the pathogenic perspective of health based on the etiology of overweight and obesity as an objective knowledge about weight. I also interpreted cultural perspectives and social discourses as other truths about overweight and obesity. The literature I reviewed showed participant interpretations of large body size as *well-rounded, big boned, being myself, strong, wealthy,* and *healthy*. While study findings have pointed to some southern Nigerian cultures views of fatness as a symbol of womanhood and parental wealth, prior to this study, no researchers have explored the views of NWIs living in Middle Tennessee or their adaptive knowledge about body weight given their context of immigration.

Problem Statement

Factors influencing individuals' health are complex. The influences from BWSP, and its discrepancy with actual body weight are also important considerations. This is because the discrepancy between BWSP and actual body weight or size have been found to be linked to self-esteem, body mass index (BMI), eating behavior, physical activity, and maintenance of healthy weight (Dorsey et al., 2009; Gee et al., 2012; Gillen & Lefkowitz, 2011; Romieu et al., 2011). BWSP is the recognition or self-identification of

an individual's body weight (Sivalingam et al., 2011) through internalized self-attribution that forms one's self-concept (Perrin-Wallqvist & Carlsson, 2011). If the difference between actual and perceived body weight persists among population groups, it may lead to underweight or overweight prevalence and persistent health disparities (Gee et al., 2012; Sivalingam et al., 2011). Understanding this aspect of self-concept among NWIs is necessary for delivering health education and appropriate health services for the prevention and control of obesity and related health conditions to this population.

Gender, ethnicity, race, and social and economic status influence individuals' health conditions. Due to the unique circumstances of acculturation and their social and economic status, immigrants from low income countries risk being overweight and obese (Delavari et al., 2013). In particular, low income immigrants to the United States experience declining health with increasing length of stay in the United States (Williams et al., 2010) associated with increased smoking and obesity prevalence (Venters & Gany, 2011) and higher risk for developing diabetes (Wieland, Morrison, Cha, Rahman, & Chaudhry, 2012). The AI population in the United States is also aging, thus requiring appropriate chronic disease care; their numbers are expanding (Venters & Gany, 2011) as one of the fastest growing immigrant groups in the United States. This population increased 200% in the 1990s, 100% in the 2000s (Capps, McCabe, & Fix, 2012), and currently comprises 8.5% of the foreign-born population in the United States (Migration Policy Institute, 2014 b). In the state of Tennessee, the proportion of African-born immigrants has grown from 4.7% in 1990, to 5.5% in 2000, and 7. 4% in 2012 (Migration Policy Institute, 2014 b), almost mirroring their national proportions.

Moreover Middle Tennessee, the study area in particular, is becoming one of the nation's new Ellis Islands because of the surge in the numbers of refugees, among which are Somalis and Sudanese (Hull, 2010). The expansion of AIs and the increased health risks they face with acculturation create a need to address their declining health as with other minority groups.

How individuals evaluate their body weights influences whether weight loss or healthy weight maintenance is a concern. Body size preference is influenced by culture, gender, and perceptions about health. Not knowing one's healthy weight could result in the misperceptions of one's body weight and lack of or resistance to healthy weight maintenance. Persistent misperceptions of body weight however, among sub-populations can perpetuate health disparities. Researchers who have solicited beliefs and perceived health issues of AI segments in the United States have shown that prevalence of weight gain, obesity, and diabetes are concerns (Francis, Griffith, & Leser, 2014; Shipp, Francis, Fluegge, & Asfaw, 2014). Acculturation and adverse impact of the environment on lifestyle are some explanations of this rapid rate of weight gain among African immigrants as they acquire the host country's lifestyle.

Researchers have studied self-perceptions among Mexican women, U.S-born African Americans, European Americans, and Latinos or Hispanics (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010, Overstreet, Quinn, & Agocha, 2010; Romieu et al., 2011). However, AI populations have not been included in these studies with the context of immigration in mind, even in-depth examinations of the meaning of body weight for U.S.-born African Americans (Ashcraft, 2013; Williams et al., 2013). No

researchers have studied NWI's BWSPs in the United States, experiences with weight changes after immigration, or the meanings they associated with these changes. Outside of the United States, one study of Sub-Saharan Africans living in Australia showed that this immigrant subpopulation had a preference for obesity, perceiving their children to be healthy and strong when in fact they were obese or overweight (Renzaho, 2009).

Purpose of the Study

The purpose of this qualitative study was to understand participants' lived experiences of body weight changes and BWSP of NWIs 18 years and older living in Middle Tennessee. The goal was to describe and interpret what participants' BWSP mean to them as immigrants in their historical background and cultural context. Applying interpretive phenomenology allowed me to explore, interpret, and understand (a) NWIs' lived experiences of body weight changes; (b) their BWSP; and (c) what it means to them as immigrants in their historical background and cultural context. With diverse subgroups in the United States, one way to reduce persistent health disparities is to increase research about the many cultures that exist in order to better understand complex health determinants (Barrera, Castro, Strycker, & Toobert, 2013). It is pertinent not only to understand contributors to BWSP, but also the process by which people come to know about their body weight. By considering the process of how individuals come to know about their body weight changes, I addressed the gap in the literature and obtained a deeper understanding of what it means to study participants. This study's findings could guide effective communication of appropriate health information for the prevention and control of overweight and obesity. The study result could aid health educators in

adjusting existing interventions or creating new ones appropriate for this group (Barrera, Castro, Strycker, & Toobert, 2013). Therefore, the findings from this qualitative study about NWIs' BWSPs will add to the body of literature.

Research Questions

I developed the research question using interpretive phenomenology, which aims to explore participants' perceptions, understanding, or experiences (Smith, 1999). The purpose of this research was to understand BWSP among NWIs living in middle Tennessee, and to understand what it means to them within their historical, immigration, and cultural contexts. The main research question was:

RQ: What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?

Associated subquestions included:

SQ1: How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?

SQ2: How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context (in Tennessee)?

Phenomenon of Interest

Lev Vygotsky's social constructivism (SC) theory is based on the notion that individuals come to know what they know through social interaction (Fox, 2001). The premise is that social interaction is a conduit through which people dialectically

communicate symbols and meanings. SC thus focuses on the process of learning or knowing in a psychosocial context. The assumption under SC is that people create knowledge by conceptualization or representations in the minds based on their social interactions. Subsequently, to form their realities, individuals contextually make sense of their world in a meaning-making process. Cognitive negotiation of the constructed truth or reality ensues as individuals assess the fit with socially accepted reality and their internalized meaning.

In keeping with SC, I assumed that NWIs negotiate their body weight beliefs in their social interactions (see Gillette, 1998). An interpretive constructivist approach allowed for in-depth exploration of participants' narrations of their body weight self-concept. Finally, this knowledge is then externalized through actions. For example, NWIs' beliefs and attitudes about their BWSP could give inroads to understanding their nutrition and physical activity behavior related to healthy weight maintenance.

Nature of the Study

I described and interpreted individuals' BWSPs using the SC framework. Based on this framework, I assumed that people create knowledge by conceptualization of a concept in the mind. This schema in turn relies on social interactions through which people negotiate meaning in a process of dialectic communication of symbols and expressions. Cognitive negotiation of the constructed truth or reality ensues as the knowledge maker assesses the fit with socially accepted reality while internalizing the meaning. Finally, this knowledge is then externalized through actions—in this case, nutrition and physical activity behaviors.

My focus in this study was on the process of perception or awareness of participants' body changes through their lived experience, thus BWSP, as a phenomenon. In public health, qualitative research methods are suitable to examine in-depth health issues, beliefs, attitudes, and perceptions (Nomey & Trotter II, n.d). I therefore chose interpretive phenomenology as the research method to describe participants' cognitive processes and what they thought. In interpretive phenomenology the researcher uses a double hermeneutics to explain both participants' sense-making processes from their experiences, as well as the researcher's own sense-making of the phenomenon presented in the study (Smith, Flowers, & Larkin, 2009). Interpretive phenomenology, also called hermeneutic phenomenology is rooted in the work of Martin Heidegger, Hans George Gadamar, Max van Manning, and Paul Ricour (Kafle, 2011).

Phenomenology holds that researchers' background experiences, perceptions, and beliefs will be reflected in their data interpretation (Tufford & Newman, 2010). Interpretive phenomenology is grounded in rich textual description to understand participants' life worlds or lived experiences (Kafle, 2011) as a way of exploring the appearance of a phenomenon (Smith, 2009). According to Smith (2009), interpretation is involved in order for the researcher to make sense of the phenomenon—going back and forth between part and whole of the text. The researcher offers interpretations of those experiences in conjunction with describing them. Another characteristic of interpretive phenomenology is that interpretations cannot be generalized since the information is focused on details of study participants; for this reason, this study was idiographic.

Definitions

African American: A person from any of the Black racial groups residing in the United States (Centers for Disease control and Prevention [CDC], 2007).

African immigrant/immigrant African American: Any person born in an African country who resides in the United States (CDC, 2011).

Body weight self-perception (BWSP): The recognition or self-identification of an individual's body weight (Sivalingam et al., 2011)

Social Constructivism: A sociological theory of knowledge that is used to explain how individuals actively come to know, make meaning, and make sense of the world (Kim, 2001), or how they learn in given social contexts (Thomas, 2014).

Self-perception: Internalized self-attribution that forms one's self-concept (Perrin-Wallqvist & Carlsson, 2011).

Phenomenology: "A philosophical perspective and a qualitative research approach that focuses on individual's subjective experiences and interpretations of the world" (Trochim & Donnelly, 2008, p. G-6).

Interpretive or hermeneutic phenomenology: A philosophy and methodology that is grounded in rich textual description to understand participants' life world or lived experiences (Kafle, 2011)

Life world: Also described as lived experiences (Kafle, 2011), is a concept describing a phenomenon as it is experienced by people (Flood, 2010).

Body weight misrepresentation: A phenomenon that may occur due to the difference between one's perceived and actual weights, thus a misperception of one's weight (Gee et al., 2012; Sivalingam, et al., 2011).

Assumptions

A pivotal assumption I made in this study was that participants were truthful in their responses. Given my use of the SC framework, I assumed that people create knowledge by conceptualization or representations in their minds based on their social interactions. Subsequently, to form their realities, individuals contextually make sense of their world in a meaning-making process. Because I used interpretive phenomenology, I also assumed that, researchers' background experiences, perceptions, and beliefs are reflected in their data interpretation (see Tufford & Newman, 2010). According to Smith (2009), making sense of the phenomenon involves the researcher's interpretation through going back and forth between part and whole of the text. The researcher offers interpretations of those experiences in conjunction with describing them.

Scope and Delimitations

This research was premised on the idea that how individuals evaluate their body weights would influence whether weight loss is a concern. The phenomenon of BWSP was thus the focus in this research. BWSP is where individuals assess their body size, weight, image, often desiring different outcomes, which vary between cultures, gender, and age (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet et al., 2010; Romieu et al., 2011). BWSP is therefore a way of representing one's physical body image that may or not coincide with the actual or desired weight,

size, or shape. In this study, however, I was not concerned about determining participants' actual body weights or body size and the discrepancies between their perceived and actual body weight or body size. Bound by the conceptual framework of SC, my focus was on how participants came to know about their body weight or size and changes thereof and what it meant to them.

I recruited 10 English-speaking NWIs who were originally from the southern region of Nigeria, living in Middle Tennessee, and members of a Nigerian American Association. This number was sufficient to gather the required information since participants were from a homogenous group (Guest, Bunce, &Johnson, 2006). Saturation occurred at the eighth participant where interviews revealed iterative patterns. I chose English-speaking participants to limit erroneous interpretation and increase research credibility (see Rudestam & Newton, 2007). To study the BWSP phenomenon, all participants being from one regional origin, 18 years and older, and living in Middle Tennessee was important for their shared sociocultural and historical backgrounds, and everyday experiences as immigrants.

Since BWSP as a phenomenon was central to this study, participants' shared experiences through their life world formed the basis of this phenomenological research (see Kafle, 2011). Also, participants who had lived at least 5 years in the United States were purposefully selected because length of time in the United States is a proxy for acculturation (Oza-Frank & Cunningham, 2010). These delimiters were significant to this research since gender, culture, age, immigration, and acculturation are some of the

influencers of BWSP. Other NWIs and Nigerian men were therefore not included because that would have introduced gender, social, and cultural differences.

Generalizability was not what I aimed for in this study since I sought to obtain particular information pertaining to the study participants. The research findings are idiographic information that can only apply to similar cases and event and not to a wider population (see Smith, 1999; Rudestam & Newton, 2007). In this study, transferability means the findings should describe the BWSPs of those participants who have experienced the phenomenon within similar cultural, immigration, and environmental contexts. For example, transferability of findings is possible to cases of immigrant women from similar social and cultural backgrounds considering the same delimiters.

Limitations

I purposely selected a small sample size of 10 participants from a Nigerian association in Middle Tennessee, United States. Each participant referred another participant for interviewing using a snowball sampling method. This sampling method means that the results are non-generalizable (Rudestam & Newton, 2007). The qualitative study design involved interviewing participants in their natural setting. Collecting data from people in their natural setting allowed for observing how they behaved in their everyday lives (see Nomey & Trotter II, n.d.).

Using audio recording and observing participants to collect data are open to bias since the researcher chooses what to note and could steer the interview question to desired responses from participants (Elo et al., 2014). Finally, reporting bias can occur when the researcher reports only her interests in the interpretations of participants'

experiences (Nomey & Trotter II, n.d). To minimize this, I used data collection triangulation such that data could be checked from the audio transcript and my reflections in the journal or memo entries against behavioral observations during the interview and the transcribed interviews. Elo et al. (2014) suggested using each question asked of participants as guide so as not to "steer the participant's answers too much to obtain inductive data" (p. 4).

Recall bias can occur due to memory lapse of historical weight changes and circumstances around participants' experiences as well as selective memory of certain memorable situations and no other details that could have impact on the overall understanding of participants' lived experiences. To counteract researcher bias, I used my memos and journal entries as means to check written personal sentiments about the research process, phenomenon, and participants.

Significance

With diverse subgroups in the United States, one way to reduce the persistent health disparities is to increase research about the many cultures that exist in order to better understand complex health determinants (Barrera et al., 2013). The knowledge gained from this qualitative study about NWI's BWSPs could add to the body of literature. This can be useful in adjusting existing interventions or creating new ones appropriate for NWIs. The findings of this research can be used to increase cultural and contextual understanding about how to influence behavior related to healthy weight maintenance. The findings are also relevant for community health education because this information could guide the design and contents of targeted educational materials and

workshops. Such health education interventions are important in the effort to influence nutrition and physical activity behaviors that have public health significance in the reduction of overweight and obesity. Findings from this research thus have implications for potential social change in countries, organizations, and departments with large immigrant populations. Timely health education to new immigrants could prevent excess and rapid weight gain with length of stay in the host country. Understanding the cultural influences that shape participants' BWSP could also help in the design and content of health educational materials. Ultimately, the findings of this research could be used to intervene in the nutrition and physical activity behaviors of minority populations, leading to a narrowing of health disparities.

Summary

In Chapter 1 I described the problem of the study. BWSP could lead to misperception of body weight due to the difference between perceived and actual weights. Self-perceptions of weight and body size also follow social patterning and therefore will differ between cultures, genders, and education levels. This problem could influence individuals' weight maintenance behavior. NWIs' beliefs and attitudes about their BWSP could give inroads for public health educators looking to understanding their nutrition and physical activity behavior related to healthy weight maintenance. I chose Lev Vygotsky's SC as the conceptual framework in this study because of its focus on the human meaning making process and the influences from language, culture, and social interaction on learning. I highlighted the purpose of the study, which was to understand the lived experiences of BWSP among Nigerian women immigrants 18 years and older

living in Middle Tennessee. The goal was to describe and interpret what participants' BWSPs meant to them as immigrants in their historical background and cultural context.

In Chapter 2, I discuss key concepts of the framework (SC) and how they are relevant to research purpose and methodology. I discuss existing literature on BWSP to provide examples of research showing the importance of context in BWSP. I also review different perspectives of health in Chapter 2, which sheds light on the appropriateness of using qualitative data to understand the study participants' health perceptions in terms of body weight. Finally, I review literature on culture, environment, and the circumstances of immigration as social contexts from which people make sense of their body weight.

Chapter 2: Literature Review

Introduction

Factors influencing individuals' health are complex. The influences from self-perceptions about body weight or body size (BWSP), and its discrepancy with actual body weight are also important considerations. This is because researchers have found the discrepancy between BWSP and actual body weight or size to be linked to self-esteem, BMI, eating behavior, physical activity, and maintenance of healthy weight (Dorsey et al., 2009; Gee et al., 2012; Gillen & Lefkowitz, 2011; Romieu et al., 2011). BWSP is the recognition or self-identification of an individual's body weight (Sivalingam et al., 2011) through internalized self-attribution that forms one's self-concept (Perrin-Wallqvist & Carlsson, 2011). If the difference between actual and perceived body weight persists among population groups, it may lead to underweight or overweight prevalence and persistent health disparities (Gee et al., 2012; Sivalingam et al., 2011). Understanding this aspect of self-concept among NWIs is pertinent in delivering health education and appropriate health services for the prevention and control of obesity and related health conditions to this segment.

How individuals evaluate their body weights influences whether weight loss is a concern. The phenomenon of body self-perception, where individuals assess their body size, weight, and image, and may desire different outcomes is common but varies by culture, gender, and age (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet et al., 2010; Romieu et al., 2011). Self-perception is, therefore, a way of conceptualizing one's physical body image that may or not coincide with the

desired or actual weight, size, or shape. The self-perception of body weight, when discrepant from one's actual body weight (misperception), could lead to body dissatisfaction, thereby affecting self-esteem and leading to harmful eating and physical activity behaviors (Gillen & Lefkowitz, 2011; Overstreet et al., 2010). Researchers have found that BMI and the self-perceptions of body weight and size are associated with and help to determine nutrition habits (Romieu et al., 2011). Romieu et al. (2011) measured participating Mexican women's actual BMIs, waist circumference, and height. They assessed and compared these measures to participants' perceived BMI over time by having participants select figure drawings they believe represents them in size at 18 years, after their first child, and at their current age. The authors assessed and compared participants' food intake, physical activity, BMI, self-reported body silhouettes for current body size, and body size at different life stages. Self-reported body silhouettes were used as a proxy for body sizes. They found self-reported body silhouettes, BMI, and food intake to be correlated among participating Mexican women. The change in food intake over time towards eating more carbohydrates and sweets was linked with increasing BMI and participants' self-report of increasingly larger silhouettes through the life stages. Dorsey et al. (2009) estimated the prevalence of weight misperception among adults measuring participants' BMIs using the nationally representative data from National Health and Nutrition Examination Survey (NHANES) of 1999-2006. When asked if participants were underweight; overweight;or about right; minorities; men; and persons with lower educational levels were more likely to have a weight misperception. Non-Hispanic black men and women of healthy weight were likely to report being

underweight; persons with low education who were of healthy weight, underweight, and overweight underestimated their weight. The researchers hypothesized that ethnic and gender difference in self-perceptions could be due to sociocultural factors.

To explain this process of self-perception, Gillen and Lefkowitz (2011) used social comparison theory and self-discrepancy theory, arguing that individuals frequently evaluate themselves by making comparisons to others. According to them, body perceptions also include individuals' perceptions of their ideal self and *others'* ideal self. In other words, in judging their body size, participants considered what their peers thought was the ideal body. Those with discrepancies between their perceived body weight and perceptions of others' ideal body are likely to suffer body image problems. Following this hypothesis, Gillen and Lefkowitz (2011) found that European American and Latina American women in the United States believed that their peers' ideal body sizes were thinner than their own size. European Americans and Latina Americans in the United States perceived themselves to be thinner than they were and had no desire to be bigger; men's desire to be bigger or smaller varied, and African American males and females were accepting of their size and desired larger body sizes (Overstreet et al., 2010).

These studies were quantitative analyses of BWSP and its comparisons among Latinos, Hispanic Americans (specifically Mexicans and Mexican Americans), black or African Americans, white or Caucasian Americans, Hmong, Korean Americans, and Puerto-Rican Americans (Delavari et al., 2013; Kronenfeld et al., 2010; Romieu et al., 2011; Sivalingam et al., 2011). No study has touched on black AIs' BWSP and there has

been no research on NWIs' to understand in-depth what historical, immigration, and cultural contexts influence their BWSP and how they make sense of their body weight changes. Although researchers have studied health perceptions among AIs, the research has been based on finding prevalence of health conditions and needs assessment for gaps in health services involving mainly community leaders (Francis, Griffith, & Leser, 2014; Morrison, Wieland, Cha, Rahman, & Chaudhry, 2012; Shipp et al., 2014). Beyond community leaders, the voices of grassroots AIs, who are also direct consumers of health, need to be heard. Studying population sub-segments can lead to insights into where health disparities lie.

According to Singh and colleagues (2013), part of the problem of persistent health disparities lies in no health outcome tracking by immigrant status and few studies to understand subcultural groups. Subgroup differences tend to go unnoticed when population-level findings are generalized. This task could be made more complex where there are multiple ethnicities from the same country. For instance, with at least 250 ethnicities from Nigeria (Omiunu, 2014; Onifade & Imhonopi, 2013), one could see how generalizing health reports from Nigerian immigrants would lead to gaps resulting from cultural differences. For this reason, I used purposeful sampling to recruit participants from the same region, southeast Nigeria. It is then rational to assess the health of the population at the level of ethnicities with the U.S. population, especially since the nation has become more diverse given the surge in immigration from 1980 to 2000 (Hobbs & Stoops, 2009). The challenge of missing health data by place of birth and language related to various ethnic groups in the United States is highlighted in the Health

Disparities and Inequality Report issued by the CDC. This information could be used to identify which sub-segments of the population could benefit from specific health services.

Relative to the U.S. population, immigrants in general enjoy better health, having about 3 more years of life expectancy, with black AIs having more than 7 additional years life expectancy compared to African Americans (Chaumba, 2011; Delavari et al., 2013; Singh et al., 2013; Venters & Gany, 2011). In a sample of refugees and asylees, Dookeran, Battaglia, Cochran, & Geltman (2010) found African immigrants to have relatively lower rates of overweight and obesity compared to those from Europe and Central Asia shortly after entry into the United States. However, infectious diseases were prevalent among them. In a systemic review of the acculturation and health outcome literature, Oza-Frank and Cunningham (2010) found this health advantage to decline from 10 or more years of stay in the United States. These studies show that acculturation, the adoption of a U.S. lifestyle, and neighborhood influences intersect with other factors to increase AIs' rates of overweight, obesity, and diabetes. Venters (2011) nonetheless stressed the lack of data on chronic diseases affecting AIs in the United States, and researchers agree that health profiles for specific AI sub-groups in the United States are lacking (Singh et al., 2013; Venters, 2011) as are those specifically for Nigerian women living in Middle Tennessee. However, some health statistics on Nigerians residing in a semi-urban community in the southern (south-south) region show prevalence of high blood pressure among Nigerian women (47%) and more than a 50% rate of obesity and overweight (Ekanem, Opara, & Akwaowo, 2013)

The black AI subpopulation in Middle Tennessee is a heterogeneous group of mainly Somalis, Sudanese, Ethiopians, and Nigerians (not in order of proportion; Hull, 2010). In this qualitative study, I explored and described a relatively homogeneous group (from southern Nigeria) of middle Tennessee's Nigerian women AIs' BWSP, their lived experiences of body weight changes after immigration, and what those changes mean to them as immigrants within their cultural context. The Migration Policy Institute (2014) described the demographic profile of the estimated 215, 000 Nigerian immigrants residing in the United States as (a) relatively more educated than the native born United States population; (b) more likely to be naturalized United States citizens compared to other immigrants; (c) likely to be in the health provision business or holding professional and managerial positions; (d) enjoying only slightly higher median annual income than their U.S.-born counterparts of similar educational status; and (d) having a median age of 42 with 83% of first generation Nigerian immigrants being of working age of 18 to 64.

Nigerians living in middle Tennessee work mainly in home health (Hull, 2010). Participants' region of origin in southern Nigeria is the geographical area around the River Niger delta (Niger Delta) stretching to the northwest and northeast of River Niger north of the delta. Figure 1 shows the ethno-linguistic area where the Ijaws, Edos, and Ibos inhibit, which geopolitically is also referred to as the south-south region (Tamuno & Edoumiekumo, 2012). Considering the heterogeneous make up of Nigeria, the Niger Delta region where the study participants originate alone has about 60 ethnic groups (McLoughlin & Bouchat, 2013).

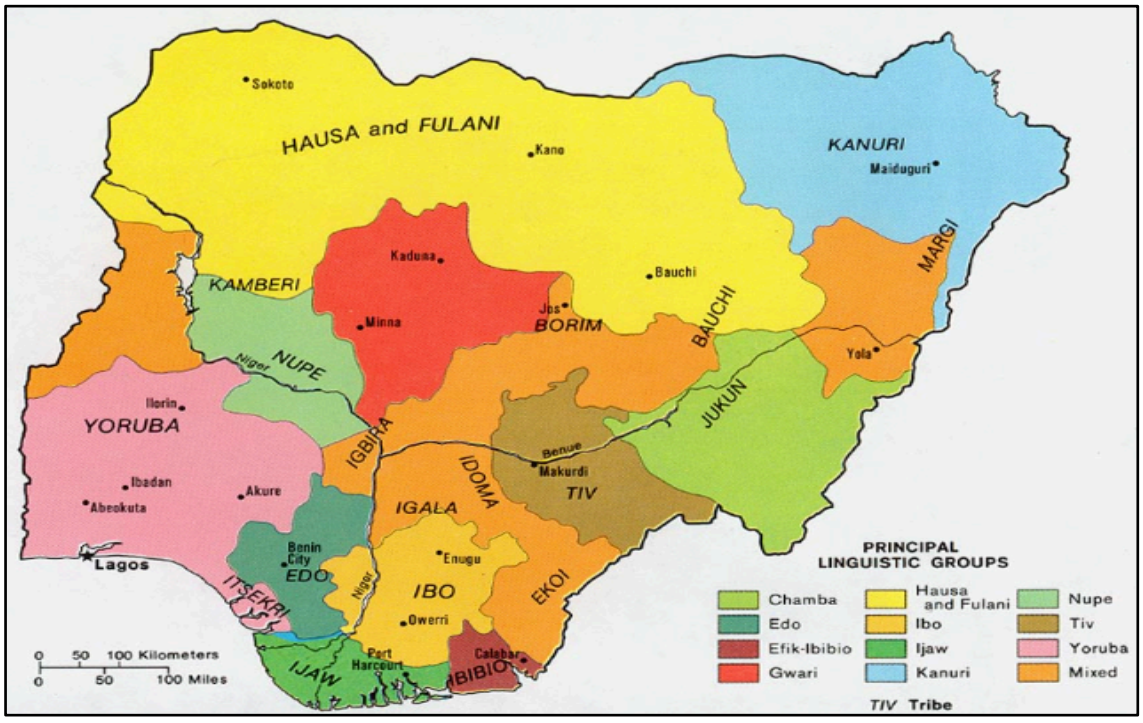

Figure 1. Map of linguistic groups of Nigeria. Adapted from "Olaudah Equiano Remembers West Africa," by NCPedia, no date (https://www.ncpedia.org/anchor/olaudah-equiano-remembers)

In accordance with phenomenological method, I selected one ethno-linguistic group to ensure a monolithic sample. This is not to say that there was no variability in customs or culture since, I expected that people of this region constitute several clans (see McLoughlin & Bouchat, 2013). Southern Nigeria differs from the north by climate, vegetation, industrialization, and social political history given the amount of rainfall, its proximity to the coast, and its population's comparatively earlier contact with the West and introduction to Western education and Christianity (Raheem et al., 2014). The southern region has dense vegetation with rainfall of about 120 inches over 9 months

compared to 20 inches over 5 months in the north; the staple foods as well as sources of income are fish, oil palm (which used to be an important national cash crop), yam, and cassava; crude oil and natural gas now are the most important source of Nigeria's revenue from that region (McLoughlin & Bouchat, 2013). Farming and fishing have been the traditionally mainstay of masses in southern Nigeria.

Crude oil concentration in the south has not brought about expected industrialization but rather environmental degradation due to oil spills and a rise in social backlash at the government and multinational oil corporation stakeholders from militant groups (McLoughlin & Bouchat, 2013; Raheem et al., 2014). These circumstances may lead to people moving away voluntarily or involuntarily. People emigrate to seek security, education, economic opportunities, or rejoin their families. Nigerians commonly immigrate internally from the rural to urban areas (McLoughlin & Bouchat, 2013) and emigration is mainly to the United States and United Kingdom (Migration Policy Institute, 2014c).

In relation to the topic of body weight, it is worth mentioning the fattening practice (nkuho) of some ethnic groups in the southern and southeastern region of Nigeria. Among the Annangs and Efiks for example, girls 15 to 18 years go through a fattening ceremony that is a right of passage from adolescence to adulthood (Oe, 2009). The girls (mbobo) are excluded from strenuous work and groomed for womanhood and marriage and the ceremony lasts from months up to seven year; the age of the girls and period of time they spend in the fattening room varies by ethnic practice and parents' wealth (Brink, 1989). Given the role of culture in self-identity, it will be of interest to

find out if the participants in this study adher to any form of fattening practice. It is likely that the study participants connect with their culture by recreating their homeland through having frequent interactions with their Nigerian ethnic group members through their association (Strübel, 2012).

Considerations of cultural and individual perspectives gained from this study and their application to the health information communication will increase the possibility of intervention participants being receptive and could increase their adoption of health behavior change. Knowledge gathered from this study could be a source of information for public health educators about the content and format of health education and prevention interventions targeted to this group. Furthermore, findings from this research have implications for countries with large immigrant populations in that health education to refugee and immigrant populations can begin earlier with entry into the host country.

In this section, key concepts of the social constructivism framework and how they are relevant to research purpose and methodology were explained. Existing literature on BWSP was discussed to provide examples of research showing the importance of context in BWSP. In this chapter, the different perspective of health were reviewed, which shed light on the appropriateness of using qualitative data to understand the study participants' health perceptions in terms of body weight. This led to examining how concepts of the self influences BWSP. Literature was reviewed on culture, environment, and the circumstances of immigration as social contexts from which people make sense of their body weight.

Literature Search Strategy

Walden University library research databases including Educational Resource Information Center (ERIC), and PsychINFO, PsycARTICLES was used. Searching Ebscohost mainly, multiple research databases were selected choosing only scholarly journal articles. Google Scholar also was searched for exact article titles or using natural language with key words.

African immigrant health, immigrant health, minority health, acculturation, African immigrants, overweight and obesity, cultural health perceptions, social constructivism, body self-concept, African body self-perceptions experiences, and *healthy immigrant effect* were key search terms used. In an iterative process, AND OR operators were used in Ebscohost with the key words in varying ways to search for *Africans* OR *black* AND *Americans* AND *immigrant* OR *minority* AND *health; obesity* AND *phenomenon* OR *experience* AND *immigrant*; minority* AND *health* AND *acculturate*; blacks* AND *immigrants* AND *culture** AND *health AND perceptions**.

Conceptual Framework and Key Concepts

Social Constructivism

Constructivism is a theory of knowledge, perception, and memory (Fox, 2001), which Raskin (2002) refers to as "constructivisms" pointing to their variations. Constructivism theories differ in their focus. Raskin (2002) refers to three key constructivisms as personal construct psychology, radical constructivism, and social constructionism (broadly including social constructivism in this category). Their variations are in how theorists view what constitute knowledge, truth, reality (objectivism

or subjectivism), and the process of learning (Raskin, 2008; Sánchez & Loredo, 2009). Whether knowledge is individually or socially constructed (Murphy, 1997) is also a differentiating element. In personal constructivism, individuals are the prime sources of their constructs even though there are external influences of social interactions; individuals also come to know the world and thus truth, based on their experiences (Raskin, 2002, 2008). In radical constructivism, associated with von Glasersfeld and others, individuals are closed systems, only knowing their internal realities; they come to know that an external reality exists when their internal reality fails without fit to the external reality (Fox, 2001; Phillips, 1995; Raskin, 2008). Social constructivism (SC) however, has to do with the individual's cognitive process of active learning by constructing knowledge through interactions with others and the environment (Murphy, 1997).

It is distinct from social constructionism, which refers to how a group of individuals (the group as the focus instead of the individual) construct knowledge through their interactions (Raskin, 2008). Even under the same constructivism category, theorists differ in what they uphold important (see Table 1). SC broadly positions knowledge, learning, and reality within the context of social environment, time, and space. It is a sociological theory of knowledge that is used to explain how individuals actively come to know, make meaning, and make sense of the world (Kim, 2001), or how they learn in given social contexts (Thomas, 2014). This accords with Lev Vygotsky's SC (Table 1), which is chosen as the conceptual framework in this study for its focus on the human meaning-making process and the influences from language, culture, and social interaction

on learning (Fox, 2001; Kim, 2001; Phillips, 1995, Vygotsky, 1930). Through their engagement with others and social negotiations in different circumstances (Gillette, 1998), using language, and symbols, individuals make meaning of their experiences (Fox, 2001) and interpret knowledge to generate shared beliefs about an object (Gillett, 1998). I used hermeneutic methodology in which I explored and described participants' language in order to obtain NWIs' perceptions and meaning of body weight. I furthermore combined hermeneutics with SC framework to analyze my data.

Table 1

Contemporary Constructivist Tendencies

Subjectivisms Psychological activity produces reality but is conceptualized in a subjective, non genetic way	Realm of Constructivism Psychological activity is understood in term Knowledge and truth are constructed contextually Characteristic tension Subjectivism ⟷ Objectivism	Objectivisms Psychological activity is explained by objective entities such as genes, the brain, culture, language and systems, etc.
Kenneth Gergen, Jonathan Potter Reality is constructed by disourse based on the consensus of individual and group interests, Explicit relativism. *Irrational psychology (based on interests)* **Edinburgh's School** (Bames, Bloor) Scientific products are the result of negotiations and consensus. *Irrational psychology (based on interest)* **Humberto Maturana** Human (observers) and animals (autopoietic machines) interpret or define their relation to the world **Heinz Von Foerster** The observer defines their own individual-mental reality although there is a *supposed inaccessible noumenic reality* **Paul Watzlawick** The pragmatics of communication and language define reality	**Baldwin** Genetic psychology and organic selection. Dialectic psychological construction of self **Piaget** Genetic psychology and theory of the phenocopy. Construction of the subject-object duality **Vygotsky** Sociohistorical context of construction emphasized. Human symbolic activity emphasized. **Ernest Von Glasersfeld** Truth as an adaptive utility Knowledge = viable models **Barbara Rogoff** Development by way of enculturation. *Plurality of cultures.* **James Wertsch** Development by way of sociocultural interaction and emphasis on mediation **Jaan Valsiner** Integration of Piaget-Vygotsky. The active character of imitation **Robert Wozniak** Integration of Piaget-Vygotsky-Gibson. Social construction of knowledge does not impede realism whose substrate resides in perception	**Gerhard Roth** The brain (initial reality) constructs our phenomenological reality **Francisco Varela** Explicit criticizes subjective construction and solipsism. Subject and object are coordinated from the beginning. Truth is based on utility **Theory of Complex Systems** Balteset al.; Oyama, Quarts & Sejnowski: the multilevel interaction of systems generates brain development and psychological activity **Berger & Luckman** Reality as a social construction. Subjects are like marionettes to socio-cultural context. Pragmatic sense of construction **Bruno Latour** Rejection of the subjective/objective distinction. Objects have their own agency. Multilevel interaction between "humans and "non-humans". *Pragmatic idea of construction*

Table 1 (continued)

Subjectivisms Psychological activity produces reality but is conceptualized in a subjective, non genetic way	Realm of Constructivism Psychological activity is understood in tern Knowledge and truth are constructed contextually Characteristic tension Subjectivism ⟷ Objectivism	Objectivisms Psychological activity is explained by objective entities such as genes, the brain, culture, language and systems, etc.
	Erlangen School (Lorenzen) The "method" of the construction of reality is operational, not formal. The search for a universal objective language **Terrence Deacon** Co-evolution of mind-language and construction reciprocates both. Organic selection **Gerald Edelman** Neural Darwinism vs. nativism and modularity. Organization of the brain by means of activity	

Note. Reprinted with permission from "Constructivisms from a Genetic Point of View: A Critical Classification of Current Tendencies" by Sánchez and Loredo (2009). *Journal of Integrative Psychology & Behavioral Science.* DOI 10.1007/s12124-009-9091-1. Copyright 2009 by Springer Nature. Reprinted with permission.

Reality. Theorists argue however, that anything goes (solipsism) in SC, because constructed meaning will differ from individual to individual, giving multiple beliefs thus truths, and interpretations (Gillett, 1998; Sánchez, & Loredo, 2009). With multiple constructed beliefs about a phenomenon in a society, this would suggest multiple realities. Having multiple truths and interpretations however does not necessarily mean anything goes. As explained by Berger and Lukemann (1991), there is a "reality par excellence" (p. 35) the reality that stands out from a body of socially objectified

knowledge. The reality that stands out from objectified knowledge then becomes significant as the standard against which individuals' constructed truths can be checked. Chompalov and Popov (2014) contend that this standard could also be the content of scientific knowledge. For example, the scientific knowledge about what constitute overweight and obesity, their prevention, and etiology as objective information could be compared with individuals' perceptions about their body weight.

In Vygotsky's SC as applied here, belief is taken as an influence on learning. It is this form of social constructivism that Gillett (1998) coins "noncontroversial" because belief is taken as an influence on what people come to know as true or real. Individuals' beliefs translated into actions could then be described to understand their reality, as opposed to beliefs themselves being the objective truth as other forms of social constructivism suggest (Fox, 2001; Raskin, 2002). It follows then that the responses from study participants about their weight maintenance behaviors could give insights to their body weight beliefs.

Knowledge and learning. Social constructivist theorists see social context as an inherent aspect of learning (Adams, 2006; Phillips, 1995; University of Houston, n.d) since social circumstances, culture, and type of social interactions could influence group interpretations and the knowledge members create. In this process, it is social interactions or socialization between members of a social group in various contexts that lead to personal internalization of knowledge and learning. Social group has been referred to as one with members who share history, culture, or political agenda (Maor, 2012). Here the Nigerian immigrant women (NWIs) are referred to in this study as a social group because

they are of the same Nigerian ethnicity (culture), living in Middle Tennessee, and of the same social network with respect to their sociocultural association. SC was suitable to highlight the contextual meaning participants create in describing how the NWIs cognitively come to know about their body weight and its changes influenced by their social interactions.

Furthermore, learning does not occur in a vacuum but is bound by time and space. Some social constructivists argue that because time and events are dynamic, the knowledge a social group creates is constantly adapted with those changes and historical development (Heylighen, 2000; Raskin, 2008; Sánchez, & Loredo, 2009). Historical developments, therefore, connote space bound events and the passing of time from which individuals' experiences culminate in knowledge that either confirms existing beliefs or replaces old ones when they are discordant and no longer fit social consensus. The notion of adaptive knowledge is perhaps indicative in the acculturation literature. Some authors thus posit, the longer immigrants reside in the United States the more likely their lifestyle changes to that similar to their U.S.-born counterparts (Frank & Akresh, 2013; Sanou, et al., 2014). It is then useful to study individuals' knowledge periodically to understand their adaptive knowledge of which this research sheds light.

SC was therefore appropriate for the methodology that used in this study exploring participants' contextual perceptions of their body weights and body weight changes. Following the framework, questions asked about participants' perceived body weight before and after immigration, their nutrition habits, physical activity experiences, and circumstances as they perceive them at various periods solicited participants'

conceptualized knowledge. Using Snowball sampling made it possible to recruit participants that share the same social network, to explore situational social interactions and understand meaning making and participants' beliefs about body weight and body weight changes within the group.

The importance of context is highlighted, for instance by Halkier and Jensen (2011), where they used a constructivist approach in their research to understand food practices among Pakistani-Danes in different contexts of their everyday lives. They stress the significance in making inferences and conclusions about participants' categorization of consumption and their consumption processes, which both point to describing and interpreting participants' meaning making. Similarly, Williams, Wyatt, and Winters (2013) deemed it important to assess weight self-perceptions, shared meaning of body size, and experiences of mothers and their daughters in a social and cultural context because those reflected what they hold regarding their weight as true. Also, by interpreting meaning African American adolescent males ascribe to their weight and weight related experiences, Ashcroft (2013) obtained participants' knowledge about obesity that are not always the same knowledge held by the nurses. Participants' appraisal of their social interactions in these studies, whether it is familial or other (Maor, 2012 ; Puoane, 2010; Williams et al., 2013), is brought forth as part of the process of cognition or meaning making about their body weight.

Literature Review Related to Key Concepts

Health Perspectives

Following the argument in social constructivism (SC) that multiple truths (realities) exist, in this section, health perspectives and different discourses about overweight and obesity were reviewed. The scientific knowledge about health, based on pathogenesis and social determinants, and what is known on cultural beliefs about fat (overweight and obesity) are also reviewed. Doing so presents the body of socially objectified knowledge from which individuals' constructed truths that stand out about body weight. This accords with Berger's and Lukemann's (1996) "reality par excellence, the reality that stands out from a body of socially objectified knowledge" (p. 35).

The health professional community's definitions and society's perspectives about what constitutes health is important since it guides what components to highlight for maintaining or improving its condition. Hence, health is commonly accepted as a measure of "physical, mental, and social well-being, and not merely the absence of disease or infirmity (World Health Organization, WHO, 2003). As such, when looking at physical health in relation to overweight and obesity, the disease or pathogenesis of the conditions cannot be overlooked. Overweight and obesity are linked to the prevalence of hypertension, Type 2 diabetes, cardiovascular diseases (CVDs), and related illnesses. Lifestyle and behaviors including poor nutrition, smoking, limited physical activity, and acculturation are attributable risks for overweight and obesity (Frank, 2013; Nguyen & El-Serag, 2010). This perspective provides the scientific knowledge and the objective reality about body weight.

WHO's definition of health, however, is challenged because of its individual level focus and pathogenic (physical and mental) connotations. The consideration of social determinants, such as gender, race, ethnicity, and living, economic and working conditions on health disparities (Bircher, 2014; Potvin, 2011) and the continua of wellbeing over the life course of individuals (Antonovsky, 1996; Mittelmark, 2013) as influencers on behavior and ultimately health are also important. In this way the health disparities literature reveal that minority populations, including low-income immigrants (Delavari et al., 2013), the focus of this study, are disproportionately overweight or obese (Agency for Health Care Research and Quality, AHRQ, 2011, U.S. Department of Health and Human Services, HHS, 2011). The pathogenic health perspective and social determinants are researched facts, with social determinants themselves providing contexts of health behavioral influences on individuals and sub-populations. It follows then that individuals could come to understand and derive meaning of (their) health and what they value, given the context of their social conditions influenced by their social interactions. Individuals' perceptions about health becomes imprtant to understanding health behavior.

Interestingly, individuals' perceptions of health such as obtained from self-reported health status and health related quality of life (HRQL) are significantly used in the health professional community to assess general or disease specific health status (Bircher, 2014; Rumsfeld, 2013). Self-reported health is used instead of objective health data for its convenience when collecting population data and because it is correlated with mortality risk (Noymer & Lee, 2013). Self-reported health status and HRQL however, are surveys obtained to match patients with treatment options and are standardized into

quantitative scales. They are standardized surveys, disease specific, and give information about the three aspects of the individual's health: symptom burden of diseases; functionality from physical, emotional, and social aspects of life; and HRQL assessing how the impact of their disease or condition has affected their overall life in the United States (Rumsfeld, 2013). Still, these types of data do not explain the process involved in individuals' understanding of their experiences, motivation for, or resistance to nutrition and physical activity behavioral change. Rather than gaining information on the etiology of overweight and obesity, this research alternatively focused on collecting individuals' experiential perspectives from historical accounts of their body weight changes. This is significant in understanding NWIs' cognition of body weight.

Collecting these historical accounts also means understanding the discourse around body size (appearance or ability to fit certain dress sizes), being fat or thin in relation to participating NWIs' culture. As previously explained, in social constructivism language is an important tool that individuals use for learning in social interactions; its application will be useful in exploring NWIs' discourse in this study. It is worth pointing out the discourses around fat and body size. As such, aligned with the pathogenic definition of health, health perspective reflected in western discourse, describes fat people as unhealthy and to be blamed for their poor nutritional and physical activity behaviors (Maor, 2012; Swami, 2013; Tischneri and Maison, 2011). However, other discourses are different. For example, Black South African adolescent and teenage girls were found to associate being fat or having a large body size with physical strength (Puoane, Tsolekile, & Steyn, 2010) and good health. Fatness as a symbol of beauty,

happiness, and prosperity was also found to be a common perception among African immigrants living in Australia (Renzaho, McCabe, & Swinburn, 2011). The desire for pot belly among African men, especially among low income men, because it is a sign of wealth, (Ekpenyong & Akpan, 2013); and the fattening room practice in some parts of southern Nigeria, the study participants' region of origin, are examples depicting the beliefs that a girl coming into womanhood fat is beautiful and symbolizes parental wealth (Brink, 1989; Ekpenyong & Akpan, 2013). Swami (2013) points out that positive views about being fat are contextually bound by current disease prevalence, the availability of food, and gender specific. Thinness associated with HIV/AIDs, for example, because of its regional prevalence, could partially explain residents' desire for having a full body; likewise when food is scarce in periods of economic hardship (Swami, 2013).

It follows then certain immigrants from non-western countries residing in the United States could also reflect these cultural perspectives about weight and their health. Research findings on mainly Mexican immigrant population show large body size preferences among them, citing cultural reasons (Lindberg & Stevens, 2011; Petti & Cowell, 2011). On the other hand some authors (Tiedje, et al., 2014; Sussner, Lindsay, Greaney, & Peterson, 2008) have cited, cultural association of fatness with health changes with the length of stay in the United States as individuals adopt the dominant cultural perception that a small body size is ideal and healthy. Benkeser, Biritwum, and Hill (2012) posit westerniztion as an explanation of the preferrence for smaller body size among urban Ghanaian women to improve their health. Still others argue that the positive association of fatness with health or preference for large body size among ethnic

minorities in the United States are changing regardless of acculturation (Agne, Daubert, Munoz, Scarinci, & Cherrington, 2012). The social discourse in a health perspective around fatness and body size among Nigerian immigrants to the United States and its context is not researched; this study highlighted the language used to describe fatness as participants perceive it. Needless to say, even among people of Western cultures, as with the feminist discourse and cultural perspectives of African Americans (American born) show, fat people are viewed as not necessarily unhealthy or living unhealthy lifestyles. As such, for some sub-western populations being healthy is not inevitably being thin (Ashcraft, 2013; Maor, 2012; Tischneri & Maison, 2011; Williams, 2013). Soliciting qualitative data from this sub-population of Nigerian women about their body weight changes and how they came to know it, has thus obtained insight into their health perspectives.

Self-Concept and Body Weight Self-Perceptions

Physical body image could include body size, weight, shape, and other attributes. Body weight self-perception (BWSP) in this study refers to the self-described body image in participants' own words by which they appraise themselves. This included description of their body weights (underweight, normal weight, overweight or obese); body size (small, medium, big, or just right), or body shape (thin, thick, heavy, just right). According to Perrin-Wallqvist and Carlsson (2011), BWSP is a phenomenon in which people construct meaning of their body weight and size. The way people self-evaluate based on their physical body image, self-esteem or self-worth, and compare themselves to

others, allows them to develop a self-concept or self-representation (Obodaru, 2012; Perrin-Wallqvist, & Carlsson, 2011).

In a study of mother and daughter dyads for example, participants appraised their weights and body size through self-evaluation and comparing themselves with others in their social circle (Williams et al., 2013). Participants described themselves and others as being either "big", "big-boned", "too small", "just right", "well-rounded", and being "themselves". With the intent to explore meaning, participants were asked to recount the times when their body weight or shape was important to them and how they understood others' body size. The open-ended question format from Williams et al., (2013) was used as a guide for the interview methodology of this study. The body weight self-perceptions of Nigerian immigrant women of this study is not known and neither is it known to have evolved over time. NWIs were therefore asked to describe their body weight over time from when they were living in their countries of origin to living here and what it means to them. The question format provided participants the opportunity to discuss the contexts of their body weight historically based on their immigration experiences and culture, which were important aspects of this study. In social constructivism these contextual influences are important in understanding the meaning making process or how NWIs come to know about their body weight and body weight changes. Through this recount, difference between NWIs' desired body weight and how they perceive themselves were anticipated to emerge for discussing discrepant BWSP. However, it was found that most of the NWIs under-rated their perceived overweight when compared to their objective body mass indices. Renzaho, McCabe, & Swinburn (2011), in their study of

intergenerational food, physical activity, and weight perception, ask what parents notice of the differences in the way body weight is perceived in Australia compared to their countries of origin. In a similar way, NWIs of this study were asked to elaborate on their self-perceived body weight compared to cultural perceptions when they were in their country of origin and what others of their culture would believe about their weights. Asking participants what they believe now about their weights compared to when they first arrived to the United States solicited understanding of how their BWSP evolved with the length of stay in the United States. Therefore, an explanation was offered of the influence from acculturation from this question (Appendix A interview items).

Self-perceptions of weight and body size follow social patterning and therefore will differ between cultures and gender (Dorsey, Eberhardt, & Ogden, 2009; Gillen and Lefkowitz, 2011; Perrin-Wallqvist & Carlsson, 2011). Quantitative studies revealed discrepancy between desired and actual body weight in the United States. European Americans and Latina Americans perceived themselves to be thinner than they were and had no desire to be bigger; younger men desire to be bigger, and African American males and females were accepting of their size, desiring larger body size (Dorsey, Eberhardt, & Ogden, 2009; Kronenfeld et al., 2010, Overstreet et al., 2010). In this case, individuals' nutrition and physical activity behaviors might not be appropriate to maintain healthy body weight when there is a discrepancy between their perceived and actual body weight. Discrepant weight perception thus has been linked to food intake pattern and BMI (Kronenfeld et al., 2010; Romieu et al., 2011; Sivalingam, et al., 2011). Among east African refugees and migrants living in Australia, Renzaho et al. (2011) found parents

desired a large body size and want their children to be overwieght. Study participants chose to eat and give their children calorie dense foods and drinks as well as limit their children's physical activity in order to gain weight. To solicit explanations of nutrition and physical activity behavior relative to participants' body weight beliefs, the researchers asked how participants' perceptions about body weight influenced their daily life. Similarly in this study, asking the interview question, *In what way has your perception about your body weight and changes affect your daily life?* will be appropriate to answer research question RQ1.2: *How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context (in Tennessee)?* Renzaho and colleagues' study also provided a suitable template for developing interview questions for this study.

While the BWSP literature include survey studies for ethnic differences, data is largely for Latino and Hispanic immigrants (Delavari, et al., 2013; Kronenfeld et al., 2010; Romieu, et al., 2011; Sivalingam, et al., 2011). Qualitative research such as this has elucidated explanations to how Nigerian women immigrants perceive their body weight and how it has changed in the course of time as it relates to their lived experiences. The awareness that one is overweight or obese can prompt self-management or health seeking behavior towards prevention (Sivalingam, et al., 2011). Therefore, this study has implications for ways in which health educators could raise overweight and obesity awareness. Participants' accounts of how their BWSP influence their daily lives also allowed for interpretation of self-regulatory behavior for maintaining or improving their health.

Culture

People are social beings and interact with one another, communicating and transacting in their daily activities creating a culture of shared meaning. Geertz (1973) describes culture as historic and a pattern of meaning that is transmitted and perpetuated through symbolic communication and actions about a belief. Static (nationality, gender, biological traits, religion) and dynamic (political or other beliefs, living conditions, marital status) characteristics of identity affiliations influence culture shaping people's worldviews. Culture then denotes identity, practices, thinking pattern, beliefs, and attitudes of members of a group. By that logic, self-perception including BWSP, is therefore also a product or by-product of culture. Using social constructivism in this study was befitting to interpret study participants' beliefs about their body weights in the bounds of culture. This fits with the notion previously explained, that gender, ethnicity, and the environment, all of which characterize culture, could influence BWSP as part of self-identity. In the previous section, cultural health perspective and the cultural influences on body weight self-perceptions were reviewed. In this study, culture provided another context, which is significant in social constructivism since the interplay between individuals, culture, and context is of interest in how people make meaning of their lived experiences.

Al-Bannay, Jarus, Jongbloed, Yazigi, and Dean (2013) and Airhihenbuwa, Ford, and Iwelunmor (2013) stress the need to consider culture as a variable or influence in health research. The role of culture, for instance, in feeding practices has been well documented as being significant in influencing nutrition and health status of individuals

(Halkier & Jensen, 2011; Sanou, et al., 2014; Tiedje, et al., 2014). Halkier and Jensen (2011) applied social constructivism and highlighted its relational aspects to understand how Pakistani Danes interpret healthy food. While they preferred "real" Pakistani food with butter or oil, to eat healthier they remove the surface butter before eating. Among their relatives however, participants agree that scraping the excess fat from food at a party with members of their social groups is not acceptable. This relational aspect of social constructivism suggests individual's social negotiation of consumption practice with members of their social network.

Culture also determines dietary habits. Sanou's and colleagues' (2014) review of dietary habits and practices revealed Francophone Africans in Montréal retained their dietary habits regardless of time spent in Canada; Punjabi women ate complex carbohydrates, proteins and plant-based foods; Greeks and Italians with strong cultural connections consumed their ethnic foods.

Acculturation, Healthy Immigrant Effect, and Nutrition Transition

The definition of acculturation varies depending on what is measured or assessed. Acculturation is measured as a function of language preference in childhood, media usage, and the friends one has (Agne et al., 2012); acquisition of the host country practices and retention or not of one's own cultural practices (Petti & Cowell, 2011; Sanou et al., 2014; Tiedje et al., 2014); dietary changes (Sanou et al., 2014); and a gradual exchange of attitudes and behaviors between immigrants and host culture (Delavari et al., 2013, p. 2). Frank and Akresh (2013) have simply used the effect on immigrants of time spent in the host country. Here, it is broadly the extent to which

immigrants have adopted the prevailing lifestyle of their host country as it relates to diet and physical activity. In the case of NWIs, adopting an American lifestyle suggests a change in existing beliefs and behaviors. Applying social constructivism, acculturation would point to social interaction and environmental influences whether it be friends, language preference, media, or food access underlying the learning process through which individual NWIs internalize and adapt personal knowledge about body weight (Heylighen, 2000; Raskin, 2008; Sánchez & Loredo, 2009). Through accounts of their lived experiences in their new social environment in Middle Tennessee, NWIs will provide explanations about their acculturation experiences and adaptive knowledge about their body weight.

In general, immigrants enjoy better health relative to the U.S. population when they first come to the United States, a phenomenon termed healthy immigrant effect. The term is based on the concept of positive immigrant selection; that those who immigrate are the healthy ones (Singh, et al, 2013). Some researchers have pointed to health advantages from three or more years of life expectancy, with black AIs having more than seven years life expectancy compared to African Americans (Delavari, et al., 2013; Singh, et al, 2013; Venters & Gany, 2011). Guendelman, Ritterman-Weintraub, Fernald, and Kaufer-Horwitz (2013) challenged the healthy immigrant effect, finding no difference between U.S. Mexican women immigrants and their counterparts in Mexico perhaps due to modernization in Mexico. In a retrospective study of a sample of refugees and asylum seekers, “asylees”, Dookeran and colleagues (2010) found high rates of overweight and obesity and prevalence of coronary artery disease (CAD) among people

from Europe and Central Asia and anemia among people from Africa. The conditions of voluntary immigrants, as is the case with the NWIs of this study, could differ however from refugees and asylees. The former, fleeing their homes and living in substandard conditions in refugee camps before arriving to the United States might have a health disadvantage at entry into the country.

The health advantage among all immigrants is shown to decline between 10 or more years of stay in the United States with differences between gender (Guendelman et al., 2013; Oza-Frank's & Cunningham's, 2010) and income gradient (Frank & Akresh, 2013). Based on the literature, a 10 years cap was used in this study as the participant selection criterion. It allowed for assessing the time influence of acculturation from NWIs' account of their experiences of weight, nutrition, and physical activity changes. In particular, low income immigrants to the United States experience declining health with increasing length of stay (Williams, Mohammed, Leavell, & Collins, 2010), which is associated with increased smoking, obesity prevalence (Venters & Gany, 2011), and could have higher risk for developing diabetes (Wieland, Morrison, Cha, Rahman, & Chaudhry, 2012). Part of the adverse health outcomes has been attributed to nutrition transition where immigrants experience a change in nutrition other than what they are used to eating. People are also limited in income, the availability of types of foods, and they face environmental constraints in maintaining their culturally preferred food and practices (Sanou et al., 2014). Against this backdrop of contexts, open-ended questions were used to answer SQ1: *How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?* For

example, probing participants to explain what they thought about their bodies when they were in their home countries and here in the United States solicited NWIs' accounts of their experiences from which historical, cultural, and immigration contexts were highlighted.

Acculturation might also influence body weight self-perceptions, where adopting the mainstream view in the United States that a small body size is desirable, could motivate individuals to lose weight. For example, the Mexican-American participants in Petti and Cowell's (2011) study had a moderately high level of acculturation and showed a preference for a smaller body size and perceived it as ideal compared to their actual body sizes.

Summary

Literature was reviewed about social constructivism as a sociological theory of knowledge, which is based on the notion that individuals come to know what they know through social interaction by contextually making sense of their world in a meaning-making process forming multiple realities. Social constructivism lens was appropriately applied in this study to understand Nigerian women immigrants' body weight self-perception and how it has evolved, how they came to know about their body weight changes, and what it means to them. Social constructivism focuses on the process of learning or knowing in a psychosocial context. It is assumed that people create knowledge by conceptualization or representation in the mind, which in turn is based on their social interactions by which they dialectically communicate symbols and meanings. Cognitive negotiation of the constructed truth or reality ensues as they assess the fit with

socially accepted reality and internalizing the meaning. Finally, this knowledge is then externalized through actions.

The pathogenic perspective of health in relation to body size and weight was also reviewed against other cultural perspectives as understood in social discourses. For example, while some southern Nigerian cultures view fatness as a symbol of womanhood and parental wealth, the views of these NWIs are not known nor are their adaptive knowledge about body weight given their context of immigration. Thus, rather than a quantitative analysis of participants' body weight perceptions and the etiology of overweight and obesity following a pathogenic perspective of health based on the objective knowledge about overweight and obesity, a qualitative approach was deemed necessary to obtain participants' perspectives of their experiences with body weight changes for in-depth explanations.

Self-perception is one's representation of his or her physical self or other images. With regards to body weight self-perception, the knowledge or awareness that one is overweight or obese could motivate for improving those conditions. Discrepancies between perceived body weight and the weight one ought to be (ideal body weight) on the other hand could lead to misperceptions. Studies have identified culture, acculturation, ethnicity, gender, and circumstances such as social and economic positions as influences of body weight self-perceptions (BWSP). The literature on BWSP sparsely includes Nigerian women immigrants specifically even when African immigrants are included. This study went further and looked at a sub-group level description and in-depth explanation of the phenomenon of body weight self-perception as experienced by

the participants. Knowledge about Nigerian women immigrants' body weight self-perceptions will contribute to health education communication because it includes cultural and contextual perspectives to influence eating and physical activity behaviors.

The literature reviewed in this section revealed various ethnic study participants' dialectic communication representing large body size as "well-rounded", "big-boned", "being myself", "strong", "wealthy", and "healthy". Applying an interpretive phenomenological approach is appropriate to focus on the study's NWIs' discourse about their body weight to understanding the phenomenon of body weight self-concept as it appears through the participants' realities. Interpretive phenomenological approach, being a method for comprehending participants' conscious experiences, judgments, and actions (Bhattacherjee, 2012; Dowling & Cooney, 2012; Kumar, 2012; Pringle et al., 2011) is a suitable methodology that was applied in this study in conjunction with SC. From SC, learning is an active process from social interactions, negotiations of beliefs and individuals' internalization of knowledge as they form and develop their body weight self-concept denoting conscious effort. An interpretive approach, with the dialectic and linguistic leaning of social constructivism, allowed for in-depth exploration of participants' narrations. The interpretive phenomenology methodology used in this study has been explained in the next chapter.

Chapter 3: Research Method

Introduction

How individuals evaluate their body weights influences whether weight loss or healthy weight maintenance is a concern. Body size preference influenced by culture, gender, perceptions about health, and not knowing one's healthy weight could result in the misperceptions or misrepresentation of one's body weight, and lack of or resistance to healthy weight maintenance. However, persistent misperceptions of body weight among sub-populations could perpetuate health disparities. AI to the United States, while enjoying better health relative to the U.S. population at first arrival, experience declining health with increasing length of stay in the United States (Williams et al., 2010). Acculturation and adverse impact of the environment on lifestyle are some explanations for this rapid rate of weight gain among AIs as they acquire the host country's lifestyle. It is pertinent to understand the process of how individuals come to know about their body weight changes and what it means to them to better communicate appropriate health information to prevent and control overweight and obesity.

The way individuals evaluate their appearance relates to the development of their self-concept, a phenomenon in which people construct meaning of their body weight and size (Perrin-Wallqvist & Carlsson, 2011). Physical body image could include body size, weight, shape, and other attributes. BWSP in this study refers to the self-described body image by which participants appraise themselves. This includes descriptions of their body weights (underweight, normal weight, overweight or obese); body size (small, medium, big, or just right), or body shape (thin, thick, heavy, just right). I used an interpretive

phenomenology approach because the focus was on dialectic communication of the meaning of participants' body weight and the body weight changes they had experienced. The purpose of this interpretive phenomenological study thus was to understand BWSPs among NWIs living in middle Tennessee and what it means to them as immigrants within their historical and cultural contexts through the lens of social constructivism.

In this chapter, I focus on the study design and ethical issues connected to my relationship with participants and knowledge of the topic that might influence the research outcome. I selected a qualitative research design that enabled collection of in-depth information regarding participants' experiences and contextual behaviors related to body weight changes (Nomey & Trotter, n.d). Interpretive phenomenology was an appropriate approach for describing and interpreting processes and meaning of BWSP through participants' lived experiences (Kaf1e, 2011) rather than quantifying the factors that define BWSP. I also discuss the criteria and procedure I used for participant selection, recruitment, data collection, and data analysis strategies were rationalized and discussed as well.

Research Design and Rational

According to Smith (1999) the research question posed should reflect interpretive phenomenology, which aims to explore participants' perceptions, understanding, or experiences. The purpose of this research was to understand BWSP among Nigerian women immigrants living in middle Tennessee, and to understand what it means to them within their historical, immigration, and cultural contexts, therefore the main research question was:

RQ1: What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?

Subsequent questions answered included:

SQ1: How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?

SQ2: How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context (in Tennessee)?

Interpretive Phenomenology and Body Weight Self-Perceptions

BWSP is the phenomenon of evaluating one's body weight to come to a perception that either reflects one's actual weight or is a misconception. This perception is influenced by a person's body weight or size desirability, in turn shaped by culture (culture of origin or adopted culture), gender, age, health knowledge, and others' perceptions of them. In this study, I was interested in the participants' awareness of their body changes through their lived experience. Since appropriate awareness of one's overweight or obesity could prompt self-management or health seeking behavior towards prevention (Sivalingam et al., 2011), understanding how people contextually come to know and understand what their weight gain means is a significant step towards designing suitable health education material for prevention.

I used the SC framework to describe and interpret individuals' BWSPs. Based on this framework, I assumed that people create knowledge by conceptualization or

representation of a concept in the mind. This schema in turn relies on social interactions through which people negotiate meaning in a process of dialectic communication of symbols and expressions. Cognitive negotiation of the constructed truth or reality ensues as the knowledge maker assesses the fit with socially accepted reality while internalizing the meaning. Finally, this knowledge is then externalized through actions—in this case, nutrition and physical activity behaviors. Thus, participants' representation of their body weight and body weight changes (as a phenomenon) over time and their nutrition and physical activity behaviors will be interpreted for their meaning.

A qualitative research method is required to describe what people think and their cognitive process. In public health, qualitative research methods are suitable to examine in-depth health issues, beliefs, attitudes, and perceptions (Nomey & Trotter II, n.d). I used a double hermeneutic to explain both participants' sense making processes from their experiences and my own sense-making of the phenomenon presented in the study (see Smith, Flowers, & Larkin, 2009). This interpretive phenomenological method, also called hermeneutic phenomenology, is rooted on the work of Martin Heidegger, Hans George Gadamar, Max van Manning, and Poul Ricour (Kafle, 2011, p. 187). It is important to distinguish however, between interpretive and descriptive phenomenology in the method of bracketing, the separation of the researcher's preconceived ideas in a statement. Bracketing, as done in descriptive phenomenology, was prescribed by Husserl (Creswell, 2017); however, in interpretive phenomenology, the researcher assumes that background experiences, perceptions, and beliefs will be reflected in their data interpretation (Tufford & Newman, 2010). This accords with SC assumption about

individuals and is thus an appropriate approach to use in conjunction with SC. According to Kafle (2011) and Tuohy et al. (2013), in interpretive phenomenology, bracketing is not necessary. Interpretive phenomenology is grounded in rich textual description to understand participants' life world or lived experiences as a way of exploring the appearance of a phenomenon (Kafle, 2011; Smith, 2009). According to Smith (2009), for the researcher to make sense of the phenomenon involves interpretation; going back and forth between part and whole of the text. The researcher offers interpretations of those experiences in conjunction with describing them. Another characteristic of interpretive phenomenology is that interpretations cannot be generalized since the information is focused on details of study participants; for this reason, this study was idiographic.

Role of the Researcher

The researcher has the role of imparting understanding of the study by analyzing in-depth the case or phenomenon under study and presenting supporting documents. The researcher is the primary instrument in qualitative research because of the closer involvement in data collection and analysis (Merriem, 2014) and is central to the interpretive phenomenological process (Smith, 2009). During data collection, I asked probing questions in addition to the main questions to clarify and solicit more explanations. Rich descriptions of individual participants' experiences of their acculturation process and body weight changes were possible from asking appropriate interview questions and from participants' descriptions of themselves.

Observation is a part of data collection in qualitative research. Since interpretive phenomenology deals with revealing underlying meaning, the interpretation of

participants' perspectives came from a combination of data sources (Smith, 2009) and observation is one such source. I made observations as part of the reflexive process. Reflexivity involves researchers noticing their impact on the process and participants' reactions to them, getting feedback from participants, questioning their assumptions and predictions, and writing their subjective opinions, feelings, and sense-making (Tracy, 2010). Unlike in an observational study where observation is the main data collection method, in phenomenology the interview process places the researcher as observer. The process entailed my spending time asking the main and probing questions and ensuring that what I wrote reflected what participants meant (see Merriam, 2009). Being this engaging presented opportunities to observe participants in a naturalistic setting and reflect on the interaction between the participants and me.

Ethical Consideration for Researcher Bias

The absence of power relations between the participants and the researcher in this study was assumed because of the non-supervisory or professional relationships between the NWIs. Merriam (2009) argues, still a power relationship exists given the extent of the participant-researcher involvement. Information asymmetry could exist so long as the researcher has all the information about the research and understanding of its implications while the participants know only what has been communicated to them.

I considered the possible imbalance of power between participants and me in obtaining informed consent during participant recruitment. Based on ethical recruitment protocol requirement, I disclosed the purpose of the research to all participants, fully informing and disclosed the research purpose and use of data and results as well as

sought their voluntary participation (Creswell, 2009). The Walden institutional review board (IRB), (approval number 06-28-16-0407385) appraised the research design and enforced ethical protocol to protect participants' rights by ensuring participants are adequately informed and that their consents were sought.

Other ethical issues included safeguarding participants' names and other identifiers to protect their anonymity. This included keeping participants' transcripts locked in a place accessible only to the researcher (U.S. Department of Health and Human Services, HHS, 1979). Anonymous confidentiality in qualitative research cannot be guaranteed because of detailed focus on individual or group phenomenon. Nonetheless, participants' general geographical region of residence, middle Tennessee, was pointed to rather than being more specific. Also, since the researcher's interpretation in phenomenology is a significant proportion of the study, reporting results in qualitative research such as this one has likely lead to some misinterpretations.

Methodology

Study Population

Immigrants born in Africa make up 8.1% (291,641) of the foreign-born immigrant population in Tennessee State, comprising Eastern Africans (2.6%), Northern Africans (2.6%), and Western Africans (2.1%) in 2012 (Migration Policy Institute, 2014). Specifically, in middle Tennessee, Nigerians, Egyptians, Ethiopians, Somalis, and Sudanese are the majority (Cornfield, 2013; Hull, 2010). African immigrants (AIs), similar to other immigrant and minority populations, are at risk for poor health with increasing length of stay to the US due to a combination of factors including lack of

health insurance, language barrier, the inability to navigate the health system, and acculturation (Dookeran et al., 2010; Murray, Mohamed, & Ndunduyenge, 2013; Shipp, Francis, Fluegge, & Asfaw, 2014; Singh, Rodriguez-Lainz, & Kogan, 2013). Yet little is documented about specific health habits and perceptions of AI groups (Morrison, Wieland, Cha, Rahman, & Chaudhry, 2012; Murray et al.,, 2013; Singh, Rodriguez-Lainz, & Kogan, 2013). This study narrowed its focus on Nigerian women immigrants as a segment of AIs.

Sample and Sampling Strategy

I used purposeful sampling to ensure selecting participants with shared BWSP phenomenon given their similar sociocultural, historical backgrounds, and everyday experiences as immigrants. I identified and chose a Nigerian American Association as the study group. The initial plan was recruit ten to 12 English speaking Nigerian woman immigrants (NWIs) participants from the southern region of Nigeria, 18 years and older, living in middle Tennessee, and have lived at least five years in the US will be selected purposefully. Recruiting 10 to 12 participants is appropriate because the sample is homogeneous for this study; therefore, information saturation, where no new information emerges, could be attained at the 10th to 12th participant (Guest et al., 2006). However, saturation occurred at the eighth participant. The five-year criterion enabled information be obtained about the extent of participants' acculturation through historical account of cultural changes they had experienced related to body weight changes. From their systematic review, Oza-Frank and Cunningham (2010) found a positive relationship between the length of stay in the US and weight gain; and 10 years to be a threshold for

rapid weight gain among immigrants even after controlling for age. For participant selection, the five-year length of stay in the US was chosen as the lower limit so that a comparison could be made with immigrants with longer stay of up to 10 years and more.

Of the Nigerian cultural groups in Middle Tennessee, one whose members are from south (southeast) Nigeria was purposefully selected. After IRB approval of this research, in order to gain access to Nigerian cultural group, the key informant, the association's president, was contacted to meet face to face at an agreed upon coffee shop to inform her about the research and the researcher's intent to recruit at the association's meeting. William et al. (2013) used a similar method in recruiting mother-daughter dyads for interviewing about their perceptions on body size. They first identified the counties with high prevalence of overweight and obesity and made contacts with key community informants who referred those interested to participate in the research. Due to ethical concerns for association members feeling pressured to participate or expecting privileged or favored status in their association, I elected to announce and recruit at the association's meeting rather than the president. The Nigerian cultural group meets typically in a community center or public place once a month.

I made initial contact with potential participants to recruit them at their association meeting. After I determined that the selection criteria are met, participants were given adequate explanations of the research based on the human subjects protection protocol. I then gave a consent form containing details about the research and the interview questions to keep, which give them a chance to prepare before the interview.

Participants were asked about their preference for a meeting venue either at their home or a public place such as a coffee shop and the date and time were determined.

At the time of the interview, I read the consent form to participants making sure the language is understood. I gave the signed copy to the participant. Only members of the association were asked for interviews. In case individuals from other regions asked to be included in the interviewed, I included the statement to be read to participants as follows (Appendix A):

> Thank you for your time. I'm at this time interviewing Nigerian women originally from the south and southeastern region of Nigeria who are 18 years or older, live in middle Tennessee, and have lived in the United States for five years or more to be in the study.

Should participants ask questions about weight and weight management, I included instruction to participants in the interview protocol and read to them as follows (Appendix A):

I will not be able to answer questions about health such as weight and nutrition. Hard copies of a web-based resource about weight and nutrition will be made available to give out.

At the completion of the interview, I asked participants for references to others from the same Nigerian association. Should the association's president be interviewed her referral for others to participate would have been made to me without expectations made to association members for favored status. However, this was not the case since the president was not interviewed. The referral for interviewees constitutes a Snowball

sampling strategy that is advantageous for identifying participants with shared culture and experiences (Trotter, 2012). The inherent bias in Snowball sampling makes study results non-generalizable (Rudestam & Newton, 2007). Generalizability in phenomenology is however not what was aimed for in this research rather, rather it was to obtain particular information as such, Snowball sampling was a suitable method to obtain idiographic information (Smith, 1999; Rudestam & Newton, 2007).

Instrumentation

Appropriate for soliciting individuals' self-perceptions and personal experiences, one-on-one and face-to-face audiorecorded interviews using open-ended questions and probes for in-depth responses was carried out (Nomey & Trotter II, n.d.; Smith, 1999). I used an interview protocol (Appendix A) that I designed based on the research questions. The purpose of the interview protocol was to guide me in building rapport with interviewees and to ask questions that solicited the desired responses to answer the research questions (Rabionet, 2011). According to Rabionet (2011), the interview protocol should contain how the researcher self-introduces and builds rapport with the participants at the first meeting; and includes getting participants' consents. Therefore, I created a consent form (Appendix B) to include purpose and use of the research, and information about participants' option to withdraw from the study.

Data Collection

Sixty minutes in-depth interview was within the requirement for semi-structured interview duration for this study (Smith & Osborn, 2007). In-depth interviewing was also appropriate to capture people's experiences and using open-ended questions was suitable

since structured interviews from a remote distance will not give the flexibility needed to probe for answers in connection to the research questions (Pringle et al., 2011). Face-to-face interviewing provided the opportunity to observe reactions of participants, which could go unnoticed when an interviewer is taking notes during an interview with a potential to also distract participants. For this reason, audiorecording was the preferred data recording method. Audiorecording therefore, allowed me to focus on listening and observing participants' gestures and expressions, which otherwise would have been missed when writing notes at the time of interviewing; participants would also feel the interviewer is paying attention to what they are saying. Still, observations were noted after each interview following Kvale's (2007) suggestion that researchers leave 10 minutes of writing time after the interview to note down observations and the communication interactions with the participants since the transcribed interview did not capture that.

Another source of data were my journal entries and memos of my reactions and reflections during the data collection process (Rudestam's & Newton's, 2007). I used these memos to take readers through my sense-making process. The journal entries and memos supplemented information from the analysis of participants' narrations. Triangulation, the use of multiple sources of data as used in this study has the purpose of increasing credibility (Creswell, 2007) through completeness of data (Pringle et al., 2011). Triangulation also allowed me to obtain suffucient data for inductive interpretation. Memos and journal entries were my means for reflexivity such that the my

written personal sentiments about the research process, phenomenon, and participants were incorporated in the analysis and reporting (Tufford & Newman, 2010).

Data Analysis Plan

The interview protocol (Appendix A) I used as guide for the interviews contains a table showing each research question with topics or themes, open-ended interview questions, and probes to answer the research questions. Kvale (2007) proposes generating themes or topics to be covered in the interview based on the research questions. The researcher is forced to anticipate the questions and likely responses to answer the research questions (Smith, 1999). Keeping in mind the social constructivism (SC) framework, the study focus was on how individuals in the study socially came to learn about their body weight and how it had changed. Using the interview questions I solicited answers to understand how participants' make meaning of their knowledge developed or constructed contextually in their minds. The following topics (as represented in Figure 2) were generated to include:

1. Participants' self-description of their current body weights (personal and cultural beliefs about own weight).
2. Participants' perceptions overtime of their body weight changes and the context of this change since immigrating to the United States.
3. The contextual meaning participants ascribe to their body weight changes and how it influences their eating and physical activity behavior for weight maintenance.

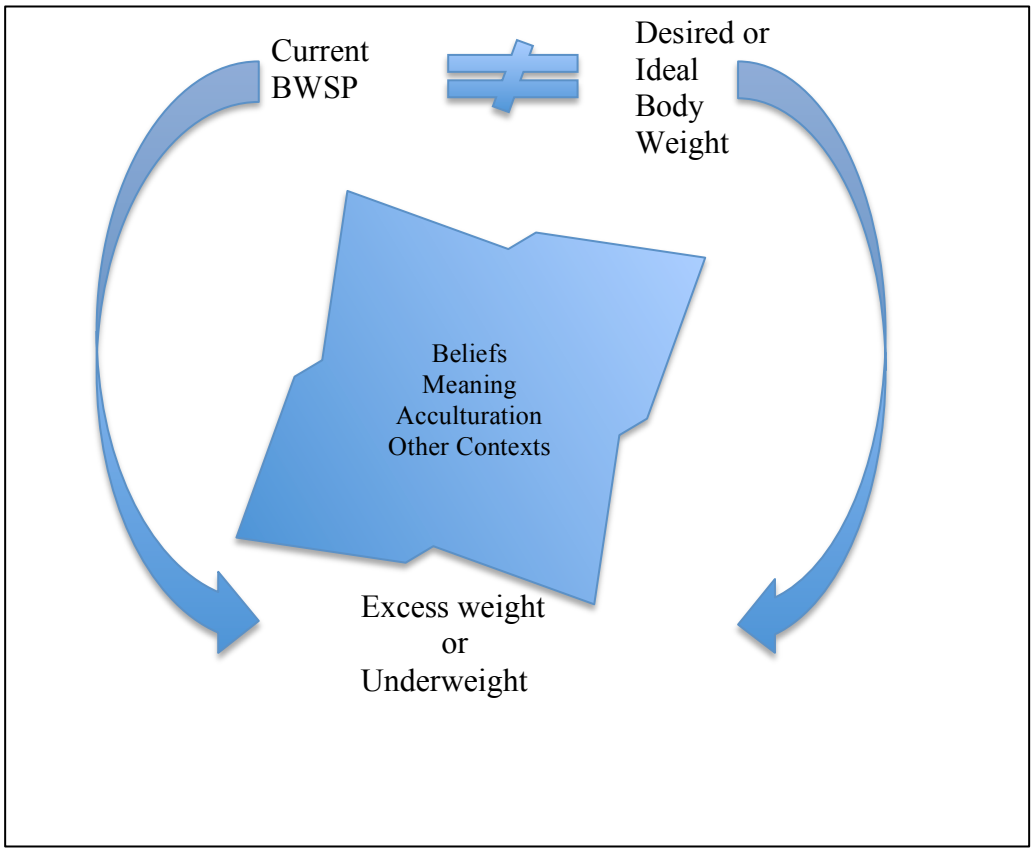

Figure 2: Body Weight and Size Self-Perception Balance

Coding

It followed then that the coding used was based on the topics covered in the interview. Coding is the process of assigning keywords to themes from transcribed interviews (Kvale, 2007) as a means of organizing interrelated data for easy access (Namey & Trotter II). Based on the topics previously identified, tentative coding were

created as *current body weight self-perceptions* (after immigrating to the United States); *past body weight self-perceptions*; *contexts and meaning of body weight perceptions* (environment, immigration, acculturation, historical, cultural); and *behavioral reaction (dietary habits and physical activity) to body weight self-perceptions*. Other themes immerged as is common with qualitative research methods giving its iterative process. The memos and journal entries were coded based on the above topics.

In this interpretive phenomenological approach, data analysis followed an interpretation of participants' narrations to find meaning from their descriptions of their experiences with body weight changes (Nomey & Trotter II, n.d.; Uprety, 2008). Consistent with interpretive research method (Bhattacherjee, 2012), a process of finding themes across participants' statements was carried out after transcribing the interviews verbatim. In this way, similar statements were grouped in clusters or themes that were used to give a rich and thick description of the context and situations in which participants' BWSP occur. All these processes were made less manual by using the data analysis tool NVivo for Mac. Bergin (2011) explains, one of the advantages of using NVivo for data analysis is it allows for querying and auditing the coding process (2012). NVivo is beneficial for analyzing multiple sources of data (Hoover & Koerber, 2011), therefore I transcribed journal entries or memos from this study, which I stored in and accessed from NVivo. After the interviews were transcribed verbatim, I analyzed the dats along with the memos within NVivo, using classical content analysis to identify concepts discussed by participants (Leech & Onwuegbuzie, 2011).

Trustworthiness

I increased the trustworthiness of this study not only through the interpretations of the findings, but also through the method I used for data collection and analysis. Trustworthiness in qualitative research is reflected in the extent to which the study is credible, transferable, dependable, and conformable (Elo et al., 2014; Kafle, N.K. 2011). According to Elo et al (2014), increasing trustworthiness starts with choosing a suitable research method and includes the choice of strategies for interviewing, interview duration, participant selection criteria, and number of study participants. The choice of methods and design of the study are justified in the previous section to reflect trustworthiness. For example, to safeguard the study's credibility, study participants were accurately selected to represent the phenomenon of interest. Transferability in qualitative research is akin to external validity in quantitative research (Bhattacherjee, 2012). In transferability however, the research findings can only apply to similar cases and events and not to a wider population as with external validity. This was appropriate since the phenomenon of interest was specific to the target population. In this study, transferability means the findings should describe the BWSPs of those participants who have experienced the phenomenon within similar cultural, immigration, and environmental contexts. Another desired aspect of trustworthiness is to have a varied participant pool. According to Trotter II (2012) however, variability of participants in qualitative sampling is not the aim but rather, to "confirm consensus" (p. 399). Nonetheless, the type of variability that was expected from this study was from age based on the selection criteria set at 18 years old and above and the length of stay in the United States from 5 years and

longer. I have assessed conformability of data, meaning or relevance between independently interviewed participants (Elo et al., 2014) of this study.

Another issue of trustworthiness that was considered was language barrier during interviewing. Since incorrectly interpreting participants' narrations could decrease credibility (internal validity) (Rudestam & Newton, 2007), only participants with English proficiency were selected. Increasing the study's credibility also entailed asking questions that were appropriately designed to answer the research questions (Englander, 2012). Data collection triangulation from in-depth interviews, memos, and journal entries yielded rich and thick data from which the consistency of findings was checked, thus establishing an audit trail also increased the dependability of findings as had, spending 60 minutes to interview participants for enhanced credibility of findings. Conformability and dependability were also enhanced through these strategies.

Ethical Procedures

The key informant was to be recruited as first participant only after obtaining IRB approval for this study. However, as previously explained, to minimize power imbalance between the key informant and potential participants, I was the one who announced and distributed the research information to the women organization members. A letter of cooperation was not necessary based on the Institutional Review Board (IRB) requirement, since the target organization did not have its own IRB or policies for research partnerships (Walden University, 2015).

To ensure ethical treatment of participants, an IRB approved informed consent form was given to participants. This informed participants about the study, included proof

of study approval from the IRB, how the data will be used, and relevant contact information if they needed more information about the study, and clear statement about their option to withdraw participation at any point in the study. The language used on the recruitment flyer and consent form did not suggest pressure to participate.

Ethical concern was also applied in data collection. According to Rabionet (2011) the researcher should consider how the questions asked affect participants. For instance, the reasons for participants' emmigration was not known, it was therefore worth considering that war and devastating family circumstances might be some of the situations that could trigger participants' post traumatic syndrom. Although participants were asked to recollect experiences of body weight changes before and after emmigrating to the United States, these experiences did not lead to emotional triggers in participantrs. In the event that a participant is emotional, I had planned to offer to stop the interview for a break or to reschedule it. I had planned to stop the interview in the events that a participant decided to withdraw from the study. Instead of leaving, I had planned to offer to stay for sometime until the participants has company, and assist the participant in calling a loved one.

Other Ethical Considerations

This study focused on Nigerian women immigrants (from southeast Nigeria) living in middle Tennessee. The described target population narrowed the study participants further as a minority group that could be identified. For this reason, complete anonymity of the study participants was not guaranteed but confidentiality. To protect participants' confidentiality pseudonyms were assigned to individuals and access to raw

data lies solely on me. The interview audiotapes and hard copies of the transcripts were stored in a locked cabinet accessible only to me. Digital audio recordings and transcripts were stored in the researcher's personal computer that is password protected.

Participants were given a five-dollar gift card to the local African food store as compensation for their time. A five-dollar gift was appropriate since the study participants did not interpret it as coercing them to participate (Walden University, 2010). I had planned that those who decided to stop their participation would have still be given the five-dollar gift card. All NWIs in the study completed their interviews.

Summary

Nigerians are among the more than 8% foreign born population in Tennessee. A minority group similar to other minority sub-populations, Nigerian women immigrants (NWIs) face health risks with increasing length of stay in the United States. Rapid weight gain and its risks are partially explained by acculturation, the process of which is less researched. The purpose of this study was to understand the process of how NWIs come to know about their body weight changes and what it means to them in order to better communicate appropriate health information for the prevention and control of overweight and obesity.

After IRB approval was obtained, a Snowball sampling was used to recruit eight participants, appropriate for phenomenology, from a Nigerian association. The key informant was sought for access to the association. I chose to announce and distribute the research information at the association meetings for potential participants to contact me. I

had planned that the key informant would be the first potential participant to be recruited but was not in order to minimize power imbalance.

I carried out one-on-one and face-to-face audiorecorded interviews using open-ended questions and probes for in-depth responses suitable for soliciting individuals' self-perceptions and personal experiences. Before interviewing, I gave and read to participants the informed consent document to ensure they understood what the research is about, how the data will be used, who will have access to the data, how they can contact key persons about the research, and importantly to ensure that they understand their rights to withdraw from the study at any time. I used an interview protocol to guide how I asked the interview questions. The protocol included an introductory section for building rapport and questions to check recruitment criteria are met. I solicited responses from participants during the interview to answer the research questions using probes when necessary. Each participant was interviewed once for 60 minutes until data saturation was reached where no more new information emerges. Data saturation occurred at the eighth participant because of the in-depth interviewing. There was not a need to contact participants by phone a second time to clarify any part of their interview responses. I gave each participants a five dollars gift card to be used at an African food store as a token of appreciation regardless of if they withdraw from the study or not.

No supervisory relationship exists between the researcher and study participants. Nonetheless, ethical considerations were taken for power differential based on information asymmetry. I was bound by the IRB protocol to protect participants' rights to consent by giving study participants a clearly written consent form for obtaining their

approval to participate. Also, steps taken to protect their confidentiality included de-identification of data, using pseudonyms, guarding data in a locked file cabinet, and protecting the my personal computer with a password.

One of the advantages of using a qualitative research method for this study is the rich, thick data obtained from the in-depth interviews. This was also made possible by integrating my perceptions of the research process and the observations of and perceptions about participants from a reflexive position in a double hermeneutics method. Data from the interviews and my reflections together were transcribed and analyzed using NVivo 12 for Mac software that made it easier to delineate patterns of themes. These themes were coded by topics linked to the research questions. Based on the purpose of the research to understand participants' beliefs about their body weight changes, the themes had been predetermined to be *current body weight perceptions* (after immigrating to the United States), *past body weight perceptions,* and *contexts and meaning of body weight perceptions.* My process of reflection and memoing also provide audit trails to check how my interpretations are derived.

Chapter 4: Results

Introduction

The purpose of this study was to understand the process in which NWIs came to know about their body weight changes and what those changes mean to them, a phenomenon known as BWSP. This knowledge will contribute in ways that will better enable health educators to communicate appropriate health information for the prevention and control of overweight and obesity. To understand BWSPs among NWIs living in middle Tennessee and to understand what it means to them within their historical, immigration, and cultural contexts, the main research question I asked was:

RQ: What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?

The subquestions associated with the RQ were:

SQ1: How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?

SQ2: How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context in Tennessee?

To answer these questions, I interviewed eight women face-face using open-ended questions and an interview protocol as guide. Based on the methodology explained in Chapter 3, I obtained data by audio recording then analyzed the interview transcriptions following interpretive phenomenology concepts and Lev Vygloski's SC

framework. In this way, participants' statements where categorized into themes and codes to reflect the predetermined topics obtained from the literature review in Chapter 2.

Setting

No organizational or personal conditions influenced participants at the time of the study, nor affected the interpretation of the study. Participants chose where to be interviewed. Three chose to be interviewed at coffee shops, two in their homes, one at a community center, and two chose my home. These venues were suitable for a qualitative study because they are natural settings in which to observe participants' behavior in their everyday lives (Nomey & Trotter II, n.d.).

All the participants were between the ages of 28 and 60 years old and were married with children. With the exception of one participant, the participants had been in the United States for over 5 years and all of them immigrated as teenagers or in their twenties. Five or more years of stay in the United State was an important criteria for understanding acculturation (see Oza-Frank & Cunningham, 2010) and to some extent the healthy immigrant effect as experienced by participants over time.

Demographics

The eight women who participated in the study ranged in age from 28 to 60 years old (Table 2). Participants chose pseudonyms except for one of the women who said it did not matter. The women had lived in the United States from 5 to 37 years old. Most of them were working in the healthcare sector as nurses and home health aides at the time of the study. Table 2 shows the profile of the participants with information including participants' perceptions of current overweight and when they first perceived change.

Table 2

Participants' Demographic Information

Participant	Age (years)	Height	Weight (lb)	Duration (years)	Perception of Current Overweight (lb)	[1]Actual Overweight (lb)	When noticed change
Abby	57	5'3"	167	34	15	32	After 10 years
Betty	59	5'9"	190	35	10	30	After 10 years
Ifeoma	60	5'8"	210-212	12	10-12	52-54	After 3 years
Latifatu	28	5'7"	[2]190	5	[2]Okay	[2]37	**The same
Ngozi	38	4'11"	160	17	30-35	41	After 10 years
Patricia	40	5'2"	146-147	19	I don't know	15-16	After 10 years
Samantha	60	5'10"	180	37	Overweight	15	6 weeks
Stephanie	38	5'8"	155	20	Normal	7	First year

Note. [1]Actual overweight based on comparing participants' height, weight and body mass index with the Body Mass Index Table, NIH (n.d.).

[2]Data before pregnancy.

Data Collection

I collected data from eight women via face-to-face interviews using open-ended questions and probes for in-depth responses. Prior to collecting the data, I obtained permission from the Walden University IRB (approval # 06-28-16-0407385). Data collection began on June 13, 2015 and ended February 21, 2016. Initial contact was made with potential participants to recruit them at their association meeting. The association's president did not participate in the study. Before starting an interview, I asked the participant about her age and the number of years of stay in the United States to confirm that the selection criteria were met. I then described my research and explained the process of interview. I gave the interviewee the consent form containing details about the

research and the interview questions to keep, which gave her a chance to prepare before the interview.

I used the protocol, as explained in Chapter 3, as a guide to collect participants' responses in order to answer the main research question: What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts? Secondly, I also used participants' responses to describe how NWIs' BWSP evolved over time given the changes in their cultural and social context. Finally, I explored the question of how changes in body weight self-perceptions have influenced Nigerian women immigrants' weight maintenance behaviors in their new social context in Tennessee.

First, participants were asked to choose a setting in accordance with the recommendations for qualitative studies in order for a natural behavioral outcome by participants (Nomey & Trotter II, n.d). Three interviews took place at coffee shops, two at participants' homes, one at a community center, and two completed their interviews at my home because of the distance and convenience from where they were at the time the interview was scheduled. The first participant chose to be interviewed at a coffee shop with date and time determined by me and her based on our availability. Meeting in person, I provided adequate explanations of the research based on the human subjects' protection protocol. After the participant signed the consent form, I gave her a signed copy. The participant was asked if she wanted to choose a name other than her real name (a pseudonym), which she did. At the completion of the interview, I asked the participant for references of others to interview from the same Nigerian association. The referral for

interviewees constituted a snowball sampling strategy that is advantageous for identifying participants with shared culture and experiences and a suitable method for obtaining idiographic information (Rudestam & Newton, 2007; Smith, 1999; Trotter, 2012). I repeated the same process of obtaining consent and choosing a pseudonym for seven other participants.

I assigned 60 minutes as the maximum time for the interviews within the requirement for semistructured interview duration (Smith & Osborn, 2007). The interviews, however, lasted, on average, 45 minutes, shorter than the allotted maximum time. Meetings occurred once for each participant. The interviews were audiorecorded, allowing me to focus on listening and observing participants' rsponses. Observations were noted after each interview rather than during the interview so as not to distract participants (see Kvale, 2007). These notes became part of my memos and journal entries and part of the data collected.

In-depth interviewing captured participants' experiences and the open-ended questions were suitable for the flexibility they allowed to probe for answers in connection to the research questions (Pringle et al., 2011). I asked participants to describe their body weight, then I probed them by asking follow up questions:

What does that mean to you?

How is your body weight perceived in your culture?

How do your family, friends, and other people in the United States perceive your body weight?

I audiorecorded the interviews, which allowed me to focus on listening and observing participants' body postures and expressions that otherwise could have been missed at the time of writing; participants would have also felt that I was paying attention to what they were saying (Kvale, 2007).

I was prepared to exclude potential participants should they have not met the inclusion criteria for age and duration of stay in the United States, as outlined in Appendix A, where I would have stated,

> Thank you for your time. I'm at this time interviewing Nigerian women originally from the south and southeastern region of Nigeria who are 18 years or older, live in middle Tennessee, and have lived in the United States for five years or more to be in the study. Here's a resource where you could look up information about health, weight and nutrition if you're interested.

Three participants asked for guidance in weight management, and I directed them to web-based resources about weight and nutrition.

Data collection stopped at the eighth participant when the data became repetitive with no new information obtained. That is when saturation was reached. This was fewer than the planned 10 to 12 participants. According to Rudestam and Newton (2017) while in qualitative studies participants could range from five to 30 participants, the researcher may choose to stop data collection at saturation when the result become redundant.

A challenge of snowball sampling is that it sometimes resulted in referrals of participants who were not interested. This led to calling participants for more referrals. Interviews were canceled often due to participants being called in to work unexpectedly

to cover others' shifts or due to other unforeseen events. Some participants also had two jobs and worked on the weekend, and therefore could not fit an interview into their schedule. Data collection duration took longer than anticipated reaching about 8 months. One thing to note is that participants' natural settings would be their homes, which was not the case. Only two participants were interviewed in their homes. On the other hand, the interview protocol specified that the participants and I would choose a place of interview as needed. Either way, the settings at the coffee shops and community centers also allowed for observing how participants behave naturally in their everyday lives, an aim advocated by Nomey and Trotter II (n.d.).

Data Analysis

I transcribed the interviews verbatim and transferred them for analysis in NVivo 12 software for Mac along with my journal entries and memos. Participants and their demographics were entered as cases in NVivo. I assigned eight cases pseudonyms: Abby, Betty, Ifeoma, Latifatu, Ngozi, Patricia, Samantha, and Stephanie. Themes emerged based on the topics previously identified and created from my literature review in Chapter 2 and from the research question that stemmed from Lev Vygotsky's (SC) framework. Therefore themes reflected concepts of human meaning making process and social influencers such as language and culture. My premise is that social interaction influences learning. I used this premise to help me understand how the women came to learn about their body weight, how their body weight has changed overtime, and how they make meaning of their knowledge developed or constructed contextually in their minds. I focused on the premise that it is social interaction that influences learning. The

topics identified in Chapter 3 for which the themes and codes were labeled and analyzed in this chapter are as follows:

1. Participants' self-description of their current body weights (personal and cultural beliefs about own weight).
2. Participants' perceptions overtime of their body weight changes and the context of this change since immigrating to the United States.
3. The contextual meaning participants ascribe to their body weight changes and how it influences their eating and physical activity behavior for weight maintenance.

Therefore, applying hermeneutic or interpretative phenomenology, participants' narrations were analyzed and categorized into codes as top-level nodes to include current body weight self-perception; past body weight self-perception; context; meaning of body weight; and behavior.

The theme context, a top-level node, had sub-nodes generated under it that included environment; acculturation; culture; family; friends; history; importance of weight; how I came to know; immigration; and not knowing. A mind map representation was also generated in NVivo 12 for Mac showing the top-level codes (Figure 3). Meaning of Body Weight was a child node and the others sibling nodes.

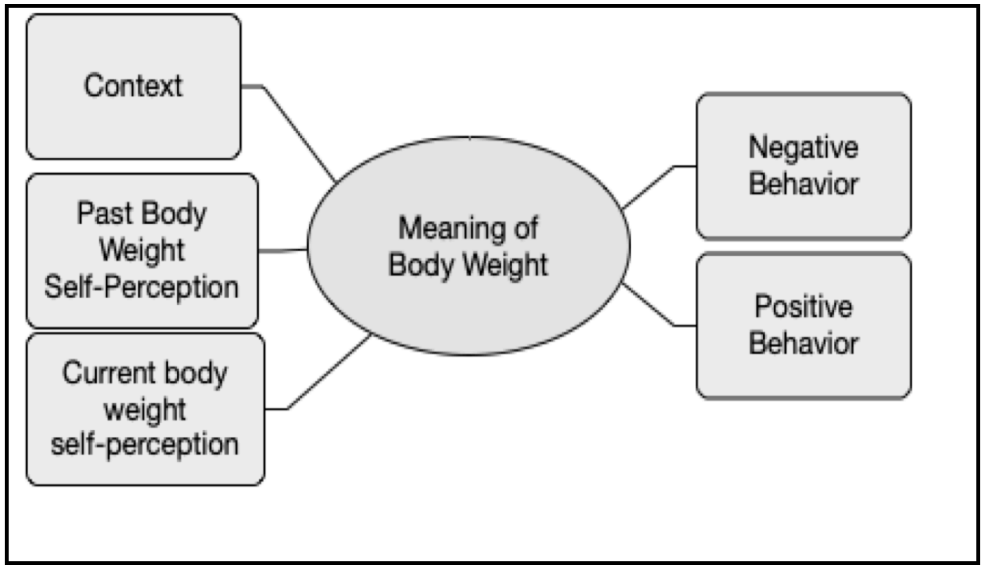

Figure 3: Mind map of BWSP

RQ What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?

I used the interview question, 1. Describe your current body weight along with participants' accounts to label the theme Current Body Weight Self-Perception. Results that I obtained from the NWIs' accounts answered the first part of the research question,

Analysis of the themes in Table 3 is as follows:

Table 2

Summary of Data

Code	Theme	Description
Current body weight self-perception	Current body weight self-perception	Participants' self-description of their current body weight (personal and cultural beliefs about own weight.
Past body weight self-perception	Past body weight self-perception	Participants' perceptions of their current body weight (personal and cultural beliefs about own weight.
Acculturation Culture Environment Family Friends Immigration Importance of weight Not knowing Sizing others.	Context	The situations and changes participants faced since immigrating to the United States and what meaning participants ascribe to their body weight changes.
Behavior		The way participants think about their body weight changes that has affected their daily lives.

RQ: What are Nigerian women immigrants' body weight self-perceptions? Results from this theme was that the majority of the women perceived themselves overweight at the time of the interview.

SQ1: How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context? I used the theme, Past Body Weight Self-Perception to answer the second part of RQ for the historical, cultural, and immigration accounts of participants' lived world. Interview probe questions such as (2). Describe your body weight over time from when you were living in your country of origin to living here in Tennessee helped me to solicit the

responses to answer the question pertaining to aspects of past experiences. The theme Past Body Weight Self-Perceptions answered research question SQ1.

The result I obtained from this theme was of NWIs perceiving a change in their weight overtime as a result of transition in age, marriage, change in environment and food contributing to their weight gain.

SQ2: How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context in Tennessee?

I used NWIs' accounts for both current and past perceptions of body weight themes to understand the negotiations the women might have gone in learning about their body weight and to come to terms with their overweight status and decide to change it. I used the theme behavior under which I obtained NWIs' discourse about the changes they were making to lose weight, eat healthier or increase physical activity.

Table 3

Summary of Results

Research Question	Interview Question	Theme	[1]Findings	Sample Quote
RQ. What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?	Describe your current body weight	Current body weight self-perception	*Most participants Perceived themselves overweight.	"Well, I would say that I'm overweight". "I think I [am] overweight with my height now because I'm 177[lb].
		Past body weight self-perception	*Most participants perceived themselves small in the past.	"When I came here I was putting on size 14, now I'm size 16…." "People called me a broom."
SQ1. How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?	Describe your body weight over time from when you were living in your country of origin to living here in Tennessee.	Context:	*Participants attribute their weight gain to marriage, having children, and the built environment and social environment at work and home.	"…In Nigeria, I've been size 14 all the time then I coming here, adding, eating all these junk food."
		Culture	The cultural expectation is for grown women not to look "skinny" but "thick".	"You can't be too skinny, people think you're sick, or they think maybe you don't have no food or something is wrong with you".
		Environment	The United States' built environment attributed to weight gain.	"You sit down, you go to the car, you sit down; you go to the store, you're in the car; everywhere in the car".
		Family	Family support participants whether they want to lose weight or are happy with their weight.	"Mommy, don't worry. You have three kids, so don't stress yourself. It's okay, you look good with your weight".
		Friends	Friends as being concerned about losing too much weight.	"But people, they know you're too big, but they just want to encourage you, Oh, you look so good dear. Don't worry about it," they don't want you to feel bad."

Table 4 (continued)

Research Question	Interview Question	Theme	Findings	Sample Quote
SQ1. How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?	Describe your body weight over time from when you were living in your country of origin to living here in Tennessee.	History		"But, like I said, after having kids I definitely struggle more to lose weight".
		How I Came to Know	Not fitting into clothes and changing dress sizes as probably the earlier sign followed by doctor telling them to lose weight.	"It just happened that I went to see a doctor and I had gained weight, in about 6 weeks."
		Not knowing	Participants came to know about their overweight when they had a health condition and when their doctor told them to lose weight.	"I kept saying to myself, I don't know why I'm gain so much weight." Because I can't fit in my clothes no more".
		Immigration		"I've been here around 17 years. I left home when I was a teenager. I was 19 actually. When I came here I weighed about 125. I felt healthy, and then of course I got married."
		Meaning of weight	Most participants believed they should lose weight.	"I feel I should reduce some weight based on my stature."
		The Importance of weight	Weight became a concern due to a health condition and age.	"So, in 2005, I got sick… my doctors, my nutritionist kept tell me, your weight is little bit, you know… So, that time it makes me think, okay, what can I do to lose weight and get much healthier?"
		Sizing Others	Participants compared themselves with other women when first arrived and saw themselves relatively smaller.	"When you see some people and say, wow, she look very beautiful. Look at her size."

Table 4 (continued)

Research Question	Interview Question	Theme	Findings	Sample Quote
SQ2. How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context in Tennessee?	In what way does how you think about your body weight changes affect your daily life?	Behavior	Participants knew that they were overweight and should do something about it led them to seek health behaviors for eating healthier and moving more.	"I lost weight. Now I have to try my best to lose more." "So I don't exercise as I used to, but I make up by cutting down on my food, but I exercise, like I park way out there at, and I walk".

[1]Key findings answering the research questions.

Theme: Current Body Weight Self-Perception

The phenomenon of BWSP is the recognition or self-identification of an individual's body weight (Sivalingam et al., 2011). Participants described their body weight as they perceived it currently at the time of the study. They compared their current weight with how they used to be, discourse categorized as "Past body weight self-perception." Current body weight self-perceptions were reflected in the women's phrasings as:

- "Well, I would say that I'm overweight".
- "Well, it means that I have added weight that I shouldn't have, and ... I'm trying actually to ... go back to what I used to be."
- "160[lb] as a number for my height is a big number."
- "I'm 4' 11" and BMI they told me was about 32.5 which is obese and it's unbelievable for me."
- "I think I probably need 10, 15 pounds less than what I'm carrying."

- "I think I [am] overweight with my height now because I'm 1.77[177cm/5'8"], and my weight is 155[lb]."

Theme: Past Body Weight Self-Perception

I gathered the women's account of their BWSP in the past. I labeled this theme so because I linked participants' perceptions of their weight changes before and after immigration to show a time line and historical understanding of their lived world. In this theme I highlighted participants' self-described body weight before immigration. Self-recognition of body weight was based on sizing others and how family and friends described them. The NWIs saw themselves in the eyes of others' descriptions of them. For instance Abby called herself a chubby young girl and even as a teenager, explaining, "All my life, I've been chubby. That's what they say, all my friends, my neighbors and family". For Betty, she used to be skinny as a young girl in Nigeria that, "They [others] nicknamed me broom".

Ifeoma was a size 14 compared to size 16 at the time of interviewing. She explains that, "When I came here I was putting on size 14, now I'm size 16….All those dress, I cannot put them on anymore." Stephanie was a discrepant case in that she was overweight before immigrating to the United States. She explains that, "When I was in my country I'm like 185[lb] because most of the food that we eat make you gain more weight, and it depends the type of area, the type of job you're doing." Latifatu who has the shortest duration of stay in the United States, five years, believed that her weight did not change greatly and therefore she has also been overweight before immigrating. "I

always like ... for the last time I can remember, I always been between 190 [lb] and 200 [lb], always" (Latifatu).

Theme: Context

Code: Acculturation. Participants described their experiences and attributed their weight changes on lifestyle they have adopted at work and home, thus acculturating into Unites States lifestyle. It is this that Delavari and colleagues (2013) pointed to as culminating along with neighborhood influences and other factors to increase African immigrants' rates of overweight, obesity, and diabetes. Betty mentioned, "Eating cream cheese and bagel and everything, even doughnut, even if I don't touch doughnut anymore, but I ate everything. And then, at work, you have all these familiar employees bringing bagels and cream cheese, and you chase them, and everybody is grabbing cream cheese. And then you turn around and you've gained 20, 30 pounds over a period of time." Ifeoma believed that she became less physically inactive, "But here [in the United States], you eat, you sit down, you go to the car, you sit down; you go to the store, you're in the car; everywhere in the car. It's not good. Your body is absorbing the food so you're gaining weight". It took Samantha six weeks to notice a change in her weight explaining that, "So when I came here I was very hungry, something. So the first month that I was here, when I came I started eating burger and stuff, and that it just happened that I went to see a doctor and I had gained weight, in about 6 weeks".

Code: Culture. Individuals pick up on cues from others over time about what their weight should be, what is good, bad and appropriate for their age. Culture, because it explains shared meaning between people, shapes world view, identity, practice, and

determines dietary habits (Sanou and colleagues, 2014) is an important theme to analyze. I used phrases the NWIs used as cues for their beliefs. Abby for instance, explained how her Nigerian friends judge her weight as good or bad. Betty pointed out that friends and family do not believe it is appropriate for a woman her age to be “skinny” because, “With my current weight, they think, "Oh no, you're a grown woman, you don't really need to be skinny." Ifeoma explained that to Nigerians back home, gaining weight is a sign of good living.

Stephanie explained that for her tribe, “we have to be thick”. In Nigeria, you have to be thick. For my culture, you know, you can't be too skinny, people think you're sick, or they think maybe you don't have no food or something is wrong with you. So, you have to look ... They believe where you having weight, not like too much fat you understand, they believe you're sick or you don't have no food”. The perceptions from these NWIs shed light into their behavioral actions related to their weight as was analyzed in subsequent sections leading to the theme behavior.

Code: Environment. For this theme I focused on the physical aspect of environment. Participants’ phrases about their physical environment and their beliefs on its contribution to their weight gain is supported by literature. The NWIs in this study described the lack of transportation in Nigeria as a reason for why they were not overweight when living there. Betty explains, “There's no car for you to move around from your campus, to your dorm, to your class, where you take classes, you are so physical walking everywhere”. Ifeoma conforms to say, “You know in Nigeria we walk a lot. We don’t take the car for every small thing”.

Also, lack of surplus food as snacks was offered as an explanation for not being overweight, “So, food was very sacred, and you eat as much as is in front of you because you're not going to get up and pick apple and this and that to eat in between.” Ifeoma believed that even though in Nigeria, she ate a lot of carbohydrates, she lost the weight quickly because she walked everywhere unlike in the United States, “You sit down, you go to the car, you sit down; you go to the store, you’re in the car; everywhere in the car. It’s not good. Your body is absorbing the food so you’re gaining weight.”

Code: Family. The NWIs in this study expressed their families’ perspectives about their weight and health behavior. Almost all the women get support from their families for what they believe about their weight. Family members honestly tell Abby when she gains weight and encourage her to lose weight, which is what she wants, “But, my family want, or they say, "Yes, yes you have to try to lose weight. You know since you lost 10 pound you are really little bit over weight for your age and for your height. Try to do more and lose." For Betty and Ifeoma, their environment at home encourages them to pursue health behaviors for watching what they eat and thinking about increasing their physical activity since everyone in their family is health conscious.

Stephanie’s family also supports her, even though in her case, they believe her weight gain is appropriate and her children tell her, "Mommy, don't worry. You have three kids, so don't stress yourself. It's okay, you look good with your weight". Stephanie goes on to say, “To me, it [the weight gain] doesn't bother me”. The influence from family as with other environmental influencers, is integral with the concept of learning from social interactions (Fox, 2001; Kim, 2001; Phillips, 1995). This makes a case for

NWIs negotiating their body weight beliefs as they hear feedback from family and friends and size up other American women as they make sense of it (Gillette, 1998).

Code: Friends. I used similar analysis as with the theme family to describing the influence of friends on NWIs of this study. Participants, similar to what they described of their perceptions about family support, have depicted friends as being supportive of their weight loss efforts, or showing concern and being against their weight loss efforts as in the case of Latifatu. Latifatu gets complains from friends and family alike when she loses weight even though she still has excess weight to lose. Some women explained that friends do not want to hurt your feeling and so might not tell the truth about your weight gain as Samantha explains, “But people, they know you're too big, but they just want to encourage you, "Oh, you look so good dear. Don't worry about it," they don't want you to feel bad.”

Code: History. History depicts discourse the NWIs used to explain their body weight changes and events that impacted them. The theme also shed light to what the NWIs have learned about their weight over time. Some researchers point that knowledge is constantly adapted with changes and historical development (Heylighen, 2000; Raskin, 2008; Sánchez & Loredo, 2009). Therefore, I compared data from the theme History with other themes such as meaning of body weight, immigration, and sizing others. Participants compared their current and past body weight and discussed their experiences in their country of origin and in the United States. This helped understand NWIs’ beliefs about the events that influenced their weight changes.

Code: How I Came to Know and Not Knowing. How I Came to Know and Not Knowing are new codes that emerged. They were not predetermined from the topics highlighted in the literature review in Chapter 2. It is through participants' discourse that I came to make sense of them. Combining the two codes under the theme, How I Came to Know, under this theme participants discussed how they at first did not know of their weight gain and then over time became aware of it through tell tale signs and finally being advised to lose weight by their doctor. Participants' discourse pointed to not knowing of their weight gain because it was a gradual process. Not fitting into clothes and changing dress sizes as probably the earlier sign as Ifeoma puts it, "Initially, you would not notice it but when you go to put on your dress, it becomes so tight then you ask, "When did I gain all this weight?" Patricia explains in a baffled voice, "Now if I look at the mirror I'm like, "I'm one of those people [overweight people] that I used to say, what were they thinking? I'm that person.

Acquiring a health condition and their doctor telling them to lose weight was the final and sure sign that their weight is a concern as with Abby who states, "I told you I didn't pay attention. Since I got sick, I start paying attention". For Latifatu, her doctor makes constant reminders, "Any time I go to the doctor, she complains too. She say[s], "well, you have to do something about this weight." Samantha could not figure out why she gained weight when her weight became a concern, "So I said, I didn't know why I had gained the weight, so I asked the doctor, and the doctor said what have you been eating?"

Betty, who is a nurse said her field of work placed her at an advantage to be informed about risks for being overweight, “Over a period of years, I think I get more informed. My field is also helping me, when you see very sick people, some of them from lifestyle, either they ate themselves into diseases, or they just didn't take care of themselves. They don't know what not to eat, soda, and cheese, and hamburger was their thing….”

Code: Immigration. Participants’ immigration experiences, when it came to their weight changes were mainly comparison of their lifestyles in Nigeria and the United States. Most of the women came from Nigeria except for Abby who went to two other host countries. Abby describes losing weight in one of her host countries she immigrated before coming to the United States but then gained weight after coming to the United States. The women’s experiences were those of acculturation resulting in weight gain overtime (Delavari et al., 2013; Frank & Akresh, 2013).

Code: Sizing Others. The theme Sizing Others has to do with social comparison. To describe how participants perceived their body weight over time they were probed, “How did you see your body weight compared to other women when you first came to this country?” This was in order to answer research question RQ 1.1 How have Nigerian women immigrants’ body weight self-perceptions evolved over time given the changes in their cultural and social context? NWIs in this study compared people’s body sizes in their home countries and in the United States, a process termed social comparison (Gillen & Lefkowitz, 2011) and what they observed when they first came to the United States. The women described being surprised that American women were bigger than women in

Nigeria. Patricia compared others when at a restaurant, park or walking in the street. Ngozi wondered, “How did they let go of themselves like that? Now if I look at the mirror I'm like, "I'm one of those people that I used to say, what were they thinking?

Theme: Meaning of Body Weight

The themes previously analyzed culminated to participants’ meaning making process. With the premise that individuals conceptualize their knowledge after negotiating their realities, I used this theme to analyze participants’ knowledge about their weights. I obtained data that I categorized in prior themes as part of information the women negotiated culminating to NWIs’ beliefs about their body weight. In this theme the women’s discourses have shown that they did not perceive their weight as a problem before they immigrated to the United States (except Stephanie). Participants saw themselves smaller than other American women and perhaps did not believe they too will gain as much weight. However, gradually, for most of the women it was after more than 10 years of being in the United States did weight become a concern as manifested by an illness and then voiced out by their doctor.

Almost all the women said that perceiving themselves as overweight, “It means, I need to lose weight. 10lb, 15lb, 20lb”. It was after surviving cancer that Abby began asking, “So, that time it's makes me think, "Okay, what can I do, to lose weight and get much healthier?" Betty’s weight became important to her when she was diagnosed with high blood pressure 20 years ago. As she negotiated her reality, Betty explained, “If I dropped 30 pounds from this weight, I told you I used to be 170, I probably weigh 190, something like ... can you imagine if I lose 20 pounds from this weight? I don't think I

can even carry a very good weight loss, I probably wouldn't look good. You might lose so much weight and you don't look good. I've not ever considered myself I'm so obese, you need to lose, but when you're a young person, you can carry skinny body, it goes with you, and then you might look certain age and in mind, "She's so skinny, she'll age so quick because she dropped so much weight." Betty believes that she should lose weight but only the appropriate amount so she would not look skinny or age quickly. Similarly, Ifeoma does not want to lose weight so people (back in her home country) do not think her skinny coming from the United States, “I wouldn’t like to get too thin. People might think, “Oh, you came from the U.S and you’re so skinny”.

Ngozi had also pointed that her sister in Nigeria had once told her not to visit her home country looking skinny. This and Betty’s discourse point to overweight and living in the United States as proxies for quality of life. For Ngozi, “160[lb] as a number for my height is a big number. It’s always in my mind, I always wanted to be between 125[lb] and 130[lb]. It means I'm gaining weight. It means that if I don't stop what I'm doing it will get out of hand, and it means I'm capable of adding more numbers to it. I didn't think of it like that when my weight was stagnant for a while, but 160 shows I can be double that and go to 300s. Yes, I talk about the number but I feel it… It affects my behavior because I don't want to go out as much as I wanted to go. I really love, I would have loved to go swimming as an exercise but now I'm conscious of my body and I'm always ... shopping is a problem because you don't get something that you like”.

Latifatu also feels she is too heavy at 200lb and would begin to lose weight but stops her weight loss efforts when she starts feeling light, “I feels too light. I'm not me no

more. I felt too light, like when it's windy, I feel like I'm going to fall". At this point her friends and family became concerned and complained about her looking sick.

Stephanie liked her weight even though she has more to lose. Giving that she lost weight after immigrating to the United State she explains that, "When I'm here because when I came I was 30 something years, you know what I mean? But now I lost my weight, I'm still trying to lose, but the way I look now, I like it". On the other hand, Patricia cannot say if she is overweight because she does not know her weight status. However due to being diagnosed with high cholesterol she mentioned that she knows she should watch what she eats and her weight.

Theme: Behavior

To understand how NWIs externalized the information about their weight believes, I categorized their actions in relation to their BWSP under the behavior theme. This theme simply put, is the if this, then what? Participants described their live world, how their daily practices have been shaped due to their current BWSP and to some extent past BWSP. Across the board, the NWIs due to concern about their health changed their eating and drinking habits. Ifeoma who became hypertensive said, "I change my food. I take more vegetables with less carbohydrate like unripe plantain. I cook a lot of spinach with onions and a little oil. Before I would fry the ripe plantain and eat with vegetables. You know our people drink a lot of akamu [sweetened hot drink made from corn starch]. Now I eat oatmeal. I read books to know the proportion. For exercise, the doctors will tell me to do like my husband. He walks early in the morning and I'd be sleeping." Stephanie

explains, “So, I'm trying to lose some weight, eating right, and do some exercise, and drink a lot of water.”

Betty made changes in the frequency and portions of cultural food she eats, eating more protein and less carbohydrates, “So instead of a big bowl of rice, now I get my meat, my stew, I put a little bit of beans and cook me a huge broccoli to substitute for the rice, but I'm not eating a lot of this food. To make sure I'm full, I'm drinking more water, I've never been a soda person anyways. I'm eating less carb even when I'm eating fufu (pureed West African yam flour), oatmeal, or garri (cassava meal). Instead of this yey, it’s this yey”. Betty made a large bowl with her hands and a fist size to show much smaller comparison of proportions. With Abby, it was after she understood, “everything” (the risks of overweight and its relation to being overweight, she explained, “I make my physical activity more, and my eating habits, you know, try to change a little bit healthier food. This after I understood everything right now”. Walking and drinking more water to lose weight were Latifatu’s and Stephanie’s options. Ngozi is an exception because she did not take action due to her lack of interest as she puts it, “I'm not excited of anything and so I tend to eat bad food or make bad choices”.

To illustrate the participants’ dialectics in this study, frequently used words were also generated from NVivo 12 for Mac to form a word cloud as shown in *Figure 4* above. Word frequency is depicted by the sizes of the words showing relatively larger words as those that appear more often than smaller sized ones. For example the word, “weight” is the largest in size shown in the word cloud compared to the word “big”.

Figure 4: Word cloud showing frequently used words.

It is worth noting that participants specified their weights in pounds (lb), their dress sizes in number and rarely described themselves using the words, "big" or "fat" in a negative light as some research findings shows African American women to use positive words when referring to themselves as overweight (Williams et al., 2013).

Discrepant Case

There was a discrepancy in one case, Latifatu, who disclosed she was pregnant. Therefore, the question pertaining to current perceptions of body weight was not applicable as compared to other participants. However, her historical accounts shed light to her experiences with body weight changes and the meaning she makes of it.

Evidence of Trustworthiness

To increase trustworthiness in this study, I used a phenomenological approach, interviewing using face-to-face method, and allotting 60 minutes maximum duration. I selected participant to represent the phenomenon of interest and eight study participants to attain saturation (Elo et al., 2014; Guest et al., 2006; Nomey & Trotter II, n.d.). Based on finding for when saturation occurred, 10 to 12 participants were initially to be interviewed. However, saturation occurred at the eighth participant when the same data was obtained for all codes and when no new data emerged. All participants spoke English such that language barrier was not an issue in incorrectly interpreting participants' narrations that would have decreased credibility (Rudestam & Newton, 2007). Thus, those selected to participate in the study represented the phenomenon of interest, BWSP, which is in accordance to phenomenological method. They met the criteria for having lived in the United States for at least five years to obtain their historical account for acculturation (Oza-Frank & Cunningham, 2010). Participants were from east Nigeria, pooled from the same cultural group for their shared experiences of BWSP (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Perrin-Wallqvist & Carlsson, 2011).

Transferability

Transferability in qualitative research is akin to external validity in quantitative research (Bhattacherjee, 2012). Instead, in qualitative research, generalizability is the focus where research findings can only apply to similar cases and events and not to a wider population. Therefore, the data collected and described in this research were only from the study participants who have experienced the phenomenon within similar

cultural, immigration, and environmental contexts. Data described included participants' current BWSP and historical account of their experiences with body weight changes within their Nigerian and immigration context influenced by culture, acculturation, and environment. One discrepant case however, Latifatu, provided variability and served as a comparison to confirm consensus (Trotter II, 2012).

Dependability

Dependability is data robustness over time, such that another researcher can follow the trail to replicate the study **(**Elo, Kääriäinen, Kanste, Pölkki, Utriainen, & Kyngäs, 2014). Based on sound literature review of the BWSP phenomenon, data were obtained on BWSP influencers from cultural perceptions, acculturation, environment, and historical context. These social patterning as deduced from the research participants, although peculiar to them, could be expected to also apply to other cultures with varying results. Therefore, dependability of this research relies on the premise that the influencers of BWSP will be similarly experienced and can be tested on different populations of cultures (Connelly, 2016).

Conformability

This study was on a homogenous sample of participants based on phenomenological methods and therefore not a source of variability. Variability of participants in qualitative sampling such as this is not the aim but rather, to "confirm consensus" (Trotter II, p. 399, 2012). Nonetheless, the type of variability to be expected from this study will be that from age based on the selection criteria set at 18 years old and above and the number of years living in the United States. I have assessed the

conformability of data, meaning or relevance between independently interviewed participants of this study, which accords with Elo et al. (2014).

Summary

The participants in this study were NWIs who had immigrated to the United States ranging from 5 to 35 years ago at the time of the study. Except for one participant who perceives her weight as "okay", accepting her current weight even when knowing she was overweight, six others currently perceived themselves as overweight and desiring to lose weight. Due to pregnancy Latifatu described her weight as normal but was overweight before the pregnancy. The Nigerian women immigrants attributed their body weight changes to their environment in the United States compared to that in Nigeria due to fewer opportunities to walk, driving to places and limited neighborhood activities. They perceived the lifestyle of eating fried foods, burgers, bagels, cream cheese and cereals and drinking soda to have contributed to their weight gain over time. Getting married and having children were the common reasons for all participants for the weight gain and why it is difficult to shed it. Families' and close friends offer encouragement to lose weight but also seem to influence NWIs' perceptions of what is acceptable weight for their age. One participant (Latifatu) does not lose weight beyond 190lb because then friends and family start asking her if she is ill.

As new immigrants in the United States the women in this study felt good about their weight and perceived themselves smaller than their American counterparts after sizing other women's body size. While some participants saw their weight change as a gradual process, one woman believed she gained an alarming weight within six weeks of

her arrival to the United States. Participants reflect back to say they did not know when the weight crept up on them until the doctor told them to lose weight after a diagnosed condition or during a physical exam. One participant (Abby) did not know she was remarkably overweight until after she survived breast cancer and was encouraged to lose weight. Another woman noticed that her clothes were not fitting. The common experience between these women was that they became concerned about their weight because they were constantly feeling tired.

Participants' socio-cultural perceptions about their current overweight are that they not lose weight to the level of being labeled skinny. One participant who was 30lb overweight believes that losing 10lb is better for her rather than 20lb, which would not look good on her.

"…can you imagine if I lose 20 pounds from this weight? I don't think

I can even carry a very good weight loss, I probably wouldn't look good". (Betty) For another participant, others' perception of her weight was a concern as well as not wanting to lose weight to the point of "feeling light".

All the study participants associated exercise and healthy eating with weight change when losing weight. Most participants were involved in changing their nutrition by eating more fruits and vegetables and cutting down their carbohydrate, soda and fried food intake but found it difficult to exercise. Those who exercise mention walking as the preferred physical activity. The data show that participants' perceived body weight was close to their actual weight status (Table 2). One participant, Stephanie, believed she was overweight only because her doctor told her so based on her height. "I wasn't concern[ed]

[about my weight] because I love it like that, because when you gain weight sometimes you look and say you feel like you should be". Overall, participants' behavior based on their weight gain was positive (watching what they ate and increasing physical activity) given their concern or based on their doctor's concern.

Dialectics used by NWIs of this study to describe their current, past and desired weight include words such as, "thick", "skinny", "normal", "light", "little heavy", "bit heavy", and "un petit peu heavy". Based on hermeneutic phenomenology these terms shed light into participants' cultural perspectives of positive descriptions of their body and BWSP. The interpretations of these findings are developed in chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative study was to understand the body weight changes, lived experiences, and BWSPs of NWI 18 years and older living in Middle Tennessee**.** Using a SC framework and hermeneutic or interpretive phenomenology allowed for the exploration, interpretation, and understanding of (a) NWIs' lived experiences of body weight changes, (b) their BWSP, and (c) what it means to them as immigrants within their historical background and cultural context. I assumed that participants cognitively negotiated between their constructed reality and socially (culturally) accepted reality to internalize meanings regarding their body weights (Raskin, 2008; Sánchez & Loredo, 2009). As part of the process of learning, the women externalized the knowledge about their body weight and body weight changes by adjusting their nutrition and physical activity behaviors (Raskin, 2002, 2008).

The method of interpretive phenomenology meant that my focus was on hermeneutics to apply rich textual descriptions in understanding participants' life world or lived experiences (Kafle, 2011) as a way of exploring the appearance of body self-perception as a phenomenon (Smith, 2009). In this study, I addressed the gap in literature to qualitatively look in-depth the historical, immigration, and cultural contexts influencing NWIs' BWSP and how they make sense of their body weight changes. To answer the research questions, I used snowball sampling to obtain referral to interview subsequent participants until saturation was reached at the eighth participant.

Key Findings

A key finding about participants' current BWSP was that they were overweight, except for Latifatu who could only speak of past BWSP before pregnancy. Another exception was Stephanie who considered herself "okay" if not for her height and that her doctor said she needed to lose weight. Secondly, looking back in time to when they were in their country of origin, Nigeria, and some years after immigrating to the United States, participants' past BWSP was of being skinny. The exception is Stephanie who perceived herself as being overweight before immigrating and losing weight in her host country, the United States, before her first pregnancy.

The key findings for the context of body weight changes is that participants all believed that marriage, having children, the environment in which they lived and worked, and acculturation over time had caused them to gain weight. One thing to note is that the NWIs in this study compared themselves to other American women and self-identified as relatively smaller when they first immigrated to the United States. However, over time participants said they did not know when they gained so much weight or if their weight was even a concern. Common across the board was the experience of tiredness, a telltale sign about their weight, which became a concern to them as with their clothes not fitting. They came to know about their overweight when they had a health condition and when their doctor told them to lose weight.

Finally, findings about behavior showed that, except for Ngozi, participants externalized their knowledge about meaning of their body weights by eating healthier and increasing their physical activity. In terms of discrepancy between BWSP and actual

body weight as explained in Chapter 3, the body weight and size self-perception balance showed that although participants underrated the extent of their overweight, they knew that they were overweight and should do something about it. Therefore, they desired weight loss and the outcome was to seek health behaviors to rectify that. Thus the NWIs' perceived and actual weights (Table 2) conformed and helped to explain their desire to lose weight.

Interpretation of the Findings

Current and Past Body Weight Self-Perceptions

BWSP is the recognition or self-identification of an individual's body weight (Sivalingam et al., 2011) through internalized self-attribution that forms one's self-concept (Perrin-Wallqvist, & Carlsson, 2011). The findings point to NWIs in the study acknowledging that they are currently overweight and most of them believed they were on the other hand skinny in the past when they lived in their home countries and upon arriving to the United States. Weight self-identification for the NWIs was of several stages before the women arrived at their self-concept of overweight and having the desire to lose weight. The historical line started with the NWIs upon arrival to the United States, socially comparing themselves with other American women to determine that they were smaller. Social comparison seemed to be an influence on the women's self-identification process as the literature suggests (Gillen & Lefkowitz, 2011; Williams et al., 2013). As part of the process of identifying their weight, the women also relied on what others thought about their weight, a process that Obodaru (2012) and Perrin-Wallqvist and Carlsson (2011) referred to as self-weight negotiation. Later, during their stay in the

United States, they used their dress fit as a measure of weight change and their friends' and family members' confirmations of their perceived weight gain. Feeling of tiredness, guilt from perceiving that now they are no different from those they thought were overweight initially, developing a health condition, and finally their doctor advising them to lose weight moved them to desire weight loss. This indicated a progression of self-identification and self-conceptualizing of their weight gain.

Until they had a health condition, participants in this study could have been influenced by their Nigerian cultural preference for being overweight and accepting their weight, a status they believed to be suited for grown women. It is these sociocultural and gender influencers that some researchers term patterning, which are peculiar to certain groups (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet et al., 2010; Romieu et al., 2011).

Participants' discourse around fat and body size helped me understand how they perceived being fat and whether being fat was a concern. Not fitting into a dress and being of a dress size are such terms indicated in the literature (Maor, 2012; Swami, 2013; Tischneri & Maison, 2011). One participant described putting on size 14 in the past and at the time of the interview being a size 16. She lamented about not being able to wear all those dresses anymore. Samantha explained, "If you cannot get into the clothing[s] that you were wearing before, then that tells you [that you have gained weight]" Ngozi noted, "I can't fit in my clothes no more," and reflected on her past size saying, "I felt beautiful…it was easy to choose clothes." The NWIs' discourse around dress size and

once feeling beautiful pointed to the desire to go back to a smaller size and their concern about weight gain.

Body Weight Self-Perception Discrepancy

Noteworthy is the fact that NWIs knew how much they weighed at the time of interviewing and in the past, and explicitly reported their current weights in pounds. This research did not delve into actual or objective weights to discuss in detail the discrepancies participants might have had in BWSP and their actual weight. It is however striking to see that compared to participants' healthy weight based on the weight by height chart, participants were more than 10 lb their perceived overweight, except for Stephanie who was only 7 lb over what she perceived. One participant was actually 50lb more than the 10 lb to 12 lb she perceived to be overweight. Other NWIs were 41 lb, 32 lb, 37 lb, 30 lb, 32 lb, 16 lb, and 15 lb over the weight they perceived they needed to lose. An indication of the NWIs' perceptions of the extent of their overweight is in their discourse as with Abby saying she was "a little small heavy," and Samantha reporting "I was un petit peu (a little) heavy." Here Abby and Samantha described the extent of their overweight as being slightly overweight. Other discourse around past BWSP such as, "people called me a broom" in the past showed the extent of Betty's weight gain when compared to the past. Therefore, although NWIs recognized that they were overweight, there was a discrepancy with how much participants were actually overweight.

NWIs in this study perceived themselves as currently overweight at the time of the study, believed that their weight gain was a concern, then changed their eating behavior and increased physical activity. The literature reviewed in this study showed

that weight self-perception patterns occur along ethnic, cultural, age and gender lines. As has been shown by the NWI in this study, the pattern of their self-perception was delineated along their south eastern Nigerian ethnicity and culture, gender, and experiences as women immigrants. Thus, most of the NWIs in this study desired losing weight unlike in Dorsey et al.s' (2009) finding that African American males and females accepted their size, desiring larger sizes. Perhaps the finding might be different at different stages of the NWIs' self-identification.

It would be interesting to study particiants' actual and perceived weight discrepnecies at the time of entering the United States and progressively in their life stages up to their current weight at the time of the study as has been done by Romieu et al. (2011). In the latter study, Mexican immigrant women were found to perceive their overweight changes to conform with their perceptions of eating more carbohydrates over time leading to weight gain. Therefor, if participants in this study perceived themselves relatively smaller at the time of entering the United States but were actually overweight, they could either have wanted to maintain their weight or desired to be bigger. Desiring to be bigger when in fact individuals are overweight is what Gee et al. (2012) and Sivalingam et al. (2011) explained as contributing to overweight persistence in the United States. However, at their perceived current overweight, there is not a mismatch or weight discrepancy with the NWIs actual overweight, which if there were has been found to lead to inaction for health behavior change (Dorsey et al., 2009). Therefore, as shown in Figure 2, there was not a mismatch in BWSP and actual weight. However, participants under-perceived the extent of their overweight. The fact that they knew that they were

overweight and should do something about it made them seek health behaviors for losing weight or have the desire to improve their health.

Context

The findings point to acculturation, culture, environment, family, friends, immigration, the importance and meaning of body weight, how I came to know, and sizing others as being important contexts in understanding NWIs' lived experiences of BWSPs and body weight changes. I used SC, a social learning theory and a sociological theory of knowledge to explain how the NWIs of this study actively came to know about their body weight, and made meaning and sense of the world (Kim, 2001), or how they learned about their body weight in their given social and physical contexts (Thomas, 2014).

Acculturation and Environment. Findings showed that NWIs attributed their weight gain to the environment in which they lived currently comparing it to their country of origin. Participants described the build environment in their home country as enabling for increasing physical activity. They walked to places unlike in the United States where they rode in their cars everywhere. Oza-Frank and Cunningham (2010) and Ullmann, Goldman, and Pebley (2013) highlighted the importance of neighborhood influences in studies. They explain how immigrants might live in poor neighborhoods where they are bound by fast food restaurants and lack of affordable exercise facilities (Ullmann et. Al., 2013). Nutritional transition where immigrants transition to eating Western foods, usually high fat and sugar foods, has also been sited as an influence to changing dietary habits leading to rapidity of weight gain (Ekpenyong & Akpan, 2013).

In this study, participants have expressed an association between their weight gain and eating an abundance of snack foods in the workplace for instance as in the case of Ifeoma who blamed her 30lb weight gain on these. One of the NWI looking back also acknowledged the amount of burgers and soda she ate because as she described it, she was very hungry. This led to her rapid weight gain, which she noticed within six weeks of entering the United States.

Immigration. In Table 2, one can see that most of the NWIs noticed their weight gains after 10 years of staying in the United States with the exception of Ifeoma and Samantha who noticed their weight change after three years and six months respectively, of being in their new environment. This is perhaps a reflection of rapidity in which nutritional transition occurred for them (Ekpenyong & Akpan, 2013). Latifatu believed to be the same weight without much change in body weight before and after immigrating. Interestingly, only Latifatu who has the least duration of stay in the United States (five years) described her weight as having not changed. The other women have lived in the United States ranging from 12 years to 34 years and reported noticing weight gain after 10 years of stay as has been found by Oza-Frank and Cunningham (2010) and Delavari et. al., (2013) that BMI increased significantly with five years or more of stay in the United States among immigrants. This conforms to findings from the acculturation literature and the argument that the extent to which immigrants adopted the prevailing lifestyle of their host country, using the length of stay as a proxy, could lead to weight gain and adverse health conditions (Oza-Frank & Cunningham, 2010).

Culture, Family, and Friends. NWIs in this study internalized and adapted personal knowledge about their weight through their interactions. When talking about perceptions of their body weights in the past to the present, the women consistently mentioned how others (family and friends) described them. Betty explained that even though she considered herself overweight at the time of interviewing, people in her cultural milieu would not approve of her losing more than ten pounds. According to the height and weight chart Betty is 30lb overweight. Another example is Nogozi, who was told by her sister living in Nigeria not to come and visit looking skinny. Patricia believed that her family and friends in her home country would want her to gain weight. However, Stephanie explained, her family likes her current weight and her children tell her not to stress herself about losing weight, after all she has had three children. Therefore, for Stephanie, her current overweight does not bother her even though her doctor has advised her to lose weight. Latifatu explained that a lot of people (family, friends, and co-workers) became concerned about her whenever she lost weight because her weight loss made her look ill.

The NWIs in this study described their culture as one that does not give exercise importance. Abby explained about her Nigerian American friends in Tennessee complaining that, they do not walk, they do not do anything. They tell her she looks good and not to worry (perhaps when she encourages them to join her for walks and exercise). Betty, knowing she's overweight and her doctor encouraged her to lose weight also describes that friends think she needs not lose a lot of weight because she is a grown woman and should not look skinny. Ifeoma enlightens that in Nigeria gaining weight is

seen as evidence of good living. It is shown here that culture impacts on how individuals assess their weight and their desire to lose weight (Dorsey et al., 2009; Gillen & Lefkowitz, 2011; Kronenfeld et al., 2010; Overstreet et al., 2010; Romieu et al., 2011). The finding from this study is that participants' perceptions of the extent of their overweight were far from the healthy weight they needed to be (Table 2). Culture, because it explains shared meaning between people, shapes world view, identity, practice, and determines dietary habits (Sanou and colleagues, 2014) offers an explanation to why the NWIs in this study under rated their overweight status.

Importance of weight, I didn't Know, and How I Came to Know. The NWIs of this study did not know when they gained weight. Their weights became important to them when they were diagnosed with a condition such as breast cancer, hypertension, and high cholesterol respectively and when their doctor told them they needed to lose weight. Participants did not know they gained weight to the extent of it being a concern because it was gradual. The first sign was not being able to fit into their clothes, feeling tired when walking regular distances they were used to. Two participants described being informed about their risks for overweight because they work in the healthcare setting and have been educated about the causes of disease as well as seeing first hand how people end up in hospitals.

Sizing Others

To explain the process of self-perception, Gillen and Lefkowitz (2011) used social comparison theory and self-discrepancy theory arguing that individuals frequently evaluate themselves by making comparisons with others. According to the authors, body

perceptions also include individuals' perceptions of their ideal self and *others'* ideal self. In other words, in judging their body size, participants considered what their peers thought was the ideal body. It has been explained above how friends and family might have played roles in influencing NWIs' BWSP. The NWIs' highly placed their friends' and family members' perceptions about their weights particularly for Latifatu. Latifatu uses her friends' and family's concerns for her weight loss as a signal for ending her weight loss efforts even when she has more weight to lose. In addition to others' perceptions she gauges when she feels light and feels the force of the wind as if she could fall as a confirmation of others' concern for her weight loss. Ifeoma highlighting what others described her in the past as skinny used it as a baseline for her to avoid when she is losing weight. These women ranked others' perceptions of their ideal self as important in their decision on the extent of weight to lose.

Results shown in Chapter 4 pointed to participants perceiving themselves as smaller when compared to other American women. At this stage, a positive social comparison could have generated a feeling of positive body image for the NWIs as opposed to negative emotions, which according to Ferreira, Pinto-Gouveia, and Duarte (2013) leads to the desire to be thin. For instance, Ngozi looking back to when she was a new resident of the United States remembered wondering how one could get to the point of being overweight and obese. She explained that over time she had gotten to the body size that once bewildered her without being aware.

Behavior

Discrepancies between how individuals perceive their body weight and the body weight that they desire could influence behavior related to healthy weight maintenance. In Chapter 3, Figure 2, I depicted the BWSP balance with actual and desired weight and explained how externalized behavior depends on the influences that are internal (belief) and external (environment, acculturation, and culture). Furthermore, the match or mismatch between BWSP and external reality (or the body weight they desire) in turn would lead to an individual adjusting nutrition and physical activity behavior. I have shown in this study that cultural perceptions of weight might play a role in how NWIs of this study perceived their body weight. As such, how much weight participants believed they should lose to get to a healthy weight and how much effort to put into healthy eating and increasing physical activity will also be influenced by their belief. Almost all participants said that they were eating healthier, drinking more water, and some of them walked in order to lose weight.

Ngozi on the other hand is not engaged in healthy behavior change even though she works in the health care setting and advises patients to walk and eat healthier, “I work in a hospital. I teach my patients to eat right. I tell my kids start now, start eating healthy. Always do activities, if you can walk, walk but I don't do these things that I tell other people to do. Ngozi’s outcome behavior was different from the other women. However, behavior being influenced by several factors is complex. Ferreira and collegues (2013) in their effort to show how group membership can enhance health through self-identification concluded that taking stock of individuals’ social networks could help

explain their health behavior. Ngozi is a part of the Ika community and the women's association of which the other NWIs belong. However, perhaps investigating the extent of her self-identification and other social groups she belonged that to would have also influenced her dietary and physical activity behaviors could give more insights.

Acceptance of the mid-life stage of weight gain and body changes based on ethnicity, as shown among Thai women in Australia (Noonil, Hendricks, & Aekwarangkoon, 2012) or black women in the United States (Thomas, Ness, Thurston, Matthews, Chang, & Hess, 2013) could offer an explanation to Nogozi's behavioral inaction. Interestingly, both Ngozi and Stephanie (who also said she likes her weight even though she need to lose weight as advised by her doctor) were 38 years old and therefore in the mid-life stage.

Limitations of the Study

The limitations in this study are those stemming from the conceptual framework and methodology used. The concept of constructivism, a theory of knowledge, perception and memory (Fox, 2001; Raskin, 2002) is broad. Lev Vygotsky's SC used in this study is a variation that lies along a continuum of subjectivity and objectivity or reality. However, I did not assess in detail participants' subjective and objective truth about their weights to assess if they exactly meet Les Vygotsky's SC within the continuum of constructivism (Table 1).

Also, with regards to methodology, interviewer and reporter biases were a concern (Elo, et al., 2014; Nomey & Trotter II, n.d). I used an interview protocol as guide to mitigate their likely occurrence. However, I relied on the assumption that my

interpretation is interwoven with participants' sense making of their lived world (Smith, Flowers, & Larkin, 2009). Also, giving that I used hermeneutic or interpretive phenomenological method rooted in Heidegger's work, it is expected that my background experiences, perceptions, and beliefs will be reflected in my data interpretation (Tufford & Newman, 2010). As an immigrant Nigerian woman who has lived in the United States for 18 years and has experienced body weight gain and changes my interpretation was within the lens of similar contexts as the study participants.

Another limitation is from recall bias that could have impacted on the overall understanding of participants' lived experiences due to memory lapses of historical weight changes and circumstances around participants' experiences. The NWIs might have also had selective memory of certain memorable situations and not others. The same goes to saying about participants' accounts of families' and friends' perceptions of their weight when living in their country of origin, Nigeria. The beliefs about weight might have changed from the time they lived in Nigeria and the time of the study. One participant recounts that her older sister desired her to visit home looking "good" not skinny but when she returned home for a visit she saw that her younger sisters were practicing healthy weight maintenance such as taking walks and watching their diets. This accords with the concept of adaptive knowledge where individuals' new experiences and knowledge replaces old ones (Frank & Akresh, 2013; Sanou, et al., 2014). Thus individuals' knowledge and beliefs about weight in their home country might have changed since the time they lived. Therefore their accounts about their extended families

back home desiring them to be bigger as in the case of Ngozi and Patricia might not currently be the case.

Recommendations

Recommendations for Future Research. This study answered the research question in describing participants' current BWSPs, how their experiences and environment shaped their body weight as time passed and what actions they have adopted due to their BWSPs. Based on the literature review in Chapter 2, the definition of BWSP is the recognition or self-identification of an individual's body weight (Sivalingam, et al., 2011). Further study is needed to understand NWIs' internalized self-attribution by asking study participants directly to describe themselves, for instance asking them what words they would use when describing themselves. The responses to a more direct question as this would better inform us on the women's self-concept (Perrin-Wallqvist & Carlsson, 2011). The first recommendation for further study is to understand those attributes that NWIs use to self-identify.

This study uncovered NWIs self-identified body weights through describing NWIs' discourse around their use of words such as changing dress size, clothes not fitting, being tired, knowing their weights at the doctor's office, and being told by their doctor to lose weight. Further research is needed to understand why their weight was not a concern until they developed a health condition, and to uncover further what was happening. Did social comparison with other American women play a part in making the NWIs feel relatively smaller (a self-identifier) and therefore having no desire to lose weight for a given time (Gillen & Lefkowitz, 2011) until critical point? Further research

into NWIs' beliefs about other American women when they first immigrated and how they continued to size them up as time passed could shed more light into how social comparison influence NWIs' BWSP and their desire to lose weight. Also, needed is understanding the extent to which culture influenced NWIs to self-identify as overweight and how much weight they believed they needed to lose. Participants' beliefs about losing weight to the point of reaching their actual healthy weight based on their height and age will also add value to understanding their desire to lose weight and effort they will put in doing so.

Recommendations for Practice. The findings of this interpretive phenomenological study supports the idea of including education to immigrants on what constitutes a healthy weight, overweight risks and health behaviors to maintain a healthy weight. For instance, healthy weight information could be included as part of the requirement for the health assessments in the process of becoming a permanent resident and citizen. In addition, doctors and other healthcare practitioners, health and community centers, and schools have a role in integrating health programs between the sites and activities for educating about healthy weight maintenance. With a diverse subgroups in the United States, one way to reduce the persistent health disparities is to increase research about the many cultures that exist in order to better understand complex health determinants (Barrera, Castro, Strycker, & Toobert, 2013). The knowledge gained therefore from this qualitative study about NWI's BWSPs add to the body of literature. This would aid in adjusting existing interventions or creating new ones appropriate for NWIs.

Implications for Social Change. The findings of this research could increase cultural and contextual understanding about how to influence health behavior related to healthy weight maintenance. It is also relevant for community health education practice because including this information could guide the design and contents of targeted educational materials and workshops. This is important in the effort to influence nutrition and physical activity behaviors that have public health significance in the reduction of overweight and obesity. Findings from this research thus have implications for potential social change in countries with large immigrant populations. Based on the research findings, timely health education to new immigrants could prevent excess and rapid weight gain with increasing length of stay in the host country. Understanding the cultural influences that shape participants' body weight self-perceptions could also help in the design and content of health educational materials. Ultimately, the findings of this research could be used to intervene in the nutrition and physical activity behaviors among minority populations leading to narrowing the health disparities gap for social change. Immigrants of this study entered the United States legally. Since documents are issued to travelers at the point of entry, these could include resources for health prevention information including healthy nutrition and physical activity. Also, staying legally in the United States, immigrants renew their resident status in one form or another at required periods. A health assessments is needed in some cased, for example, in applying for permanent residency. Healthcare practitioners at these points of health assessments could disseminate information to immigrants. Cultural and other associations when registering their organizations could also include preventive health information as part of the

documents issued for information about healthy weight maintenance along with other pertinent preventions such as required immunizations. Schools also require children be immunized and therefore could include information and resources on healthy weight maintenance and for the whole family.

Conclusion

A hermeneutic or interpretive phenomenological method was used within a social constructivism framework to understand the body weight changes, lived experiences of NWIs 18 years and older living in Middle Tennessee and their BWSP. Applying interpretive phenomenology allowed for the exploration, interpretation and understanding of 1) NWIs' lived experiences of body weight changes; 2) their BWSP; 3) and what it means to them as immigrants within their historical background and culture.

Using Lev Vygloski's social constructivism framework the findings in this study indicated that the NWIs of this study cognitively came to know about their body weight through their lived experiences based on their environmental and social interactions with family, friends, the health care system, and by social comparison. Following the external and internal influencers it was found that the NWIs conceptualized their body weight as overweight (Fox, 2001; Kim, 2001; Phillips, 1995).

This schema, relied on social interactions (Gillette, 1998) through which, the NWIs negotiated the meaning of their body weight in a process of dialectic communication of symbols and expressions. They internalize the knowledge as they formed and developed their body weight self-concept denoting conscious effort. The context of NWIs historical background, immigration, culture, and environment

influenced their negotiation of the meaning and importance of their body weight. The dialectic or discourse they used pointed to friends and family calling them a “broom”, “skinny”, being concerned about their health when they lose weight or telling them they are okay and look good and therefore not to worry about their weights.

Negotiating the meaning of their weights was also a process of social comparison where the NWIs determined across the board that they are relatively smaller than most American women especially when they first immigrated to the United States. However, along the way the NWIs in this study also came to know the reality of their weights when faced with health conditions. Signs from feelings of tiredness, clothes not fitting, and their doctors’ advise to lose weight helped them assess their constructed truth or reality against the fit with socially, in this case culturally, accepted reality while internalizing the meaning.

The finding that although the NWIs underrated their overweight status, ranging from 7 lbs. to over 50 lbs. shortfall, they still took action by adjusting their nutrition and physical activity. It was also found that most of the NWIs perceived their weight change after 10 years of stay in the United States, which indicate that the healthy immigrant effect might have starting eroding after five years of stay into the 10th year (Oza-Frank & Cunningham, 2010). This study showed that the knowledge and meaning NWIs conceptualized and accepted as their reality was then externalized. It was recommended that more studies are needed to understand NWIs’ self-attribution, the extent of influence from culture, social comparison, environment and health condition on BWSP and the desire to lose weight. Furthermore recommendations for practice was made for

educational material on healthy weight maintenance be created based on research and disseminated through relevant channels of immigrant contacts such as immigration ports of entry, health providers, schools and associations they belong. For social change to occur, referencing this study and its conclusion, I envision working with policy institutions to research further and implement educational materials useful to NWIs and similar ethnicities. Creating suitable educational materials for their cultural association to disseminate in educating members, particularly new immigrants to the United States, could help reduce minority health disparities particularly among Nigerian women immigrants.

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Appendix A: Interview Protocol

A. Build rapport with participant

- Make sure place of interview is comfortable (venue selected by participants and researcher).
  Introduction:
- Hello, my name is Fatimah (give my background information).
- Say to participant: I'm inviting Nigerian women originally from the south and southeaster region of Nigeria who are 18 years or older, live in middle Tennessee, and have lived in the United States for five years or more to be in the study.
- Let participant introduce herself and probe if she meets inclusion criteria.
- If she doesn't meet inclusion criteria, say: Thank you for your time. I'm at this time interviewing Nigerian women originally from the south and southeaster region of Nigeria who are 18 years or older, live in middle Tennessee, and have lived in the United States for five years or more to be in the study. Here's a resource where you could look up information about health, weight and nutrition if you're interested.
- Give information about the research and how results will be used (re-iterate from consent form). Give and explain consent form giving participants the option to withdraw from the study at any time.
- Say to participants: I will not be able to answer questions about health such as weight and nutrition. Resource about weight and nutrition at following website and a copies will be available should you want answers: http://www.choosemyplate.gov/nutrition-nutrient-density#

B. Begin open-ended questions with follow up questions:

Research Question	**Topic**	**Interview Question**	**Probes**
RQ1 What are Nigerian women immigrants' body weight self-perceptions and their perceptions of body weight changes given their historical, cultural, and immigration contexts?	a. Participants' self-description of their current body weight (personal and cultural beliefs about own weight).	1. Describe your current body weight.	i. What does that mean to you? ii. How is your body weight perceived in your culture? iii. How do your family, friends, and other people in the US perceive your body weight?
RQ1.1 How have Nigerian women immigrants' body weight self-perceptions evolved over time given the changes in their cultural and social context?	b. Participants' perceptions overtime of their body weight changes and the context of this change since immigrating to the United States. What meaning participants ascribe to their body weight changes.	2. Describe your body weight over time from when you were living in your country of origin to living here in Tennessee.	iv. When was your weight most important to you? v. What does that mean to you? vi. How did you see your body weight compared to other women when you first came to this country?
RQ1.2 How have changes in body weight self-perceptions influenced Nigerian women immigrants' weight maintenance behaviors in their new social context in Tennessee?	c. The contextual meaning participants ascribe to their body weight changes influencing their weight maintenance behavior (dietary, physical activity).	3. In what way does how you think about your body weight changes affect your daily life?	vii. How has your eating and physical activity changed with your body changes? viii. Why did you change your physical activity and eating habits?

Appendix B: Recruitment Flyer

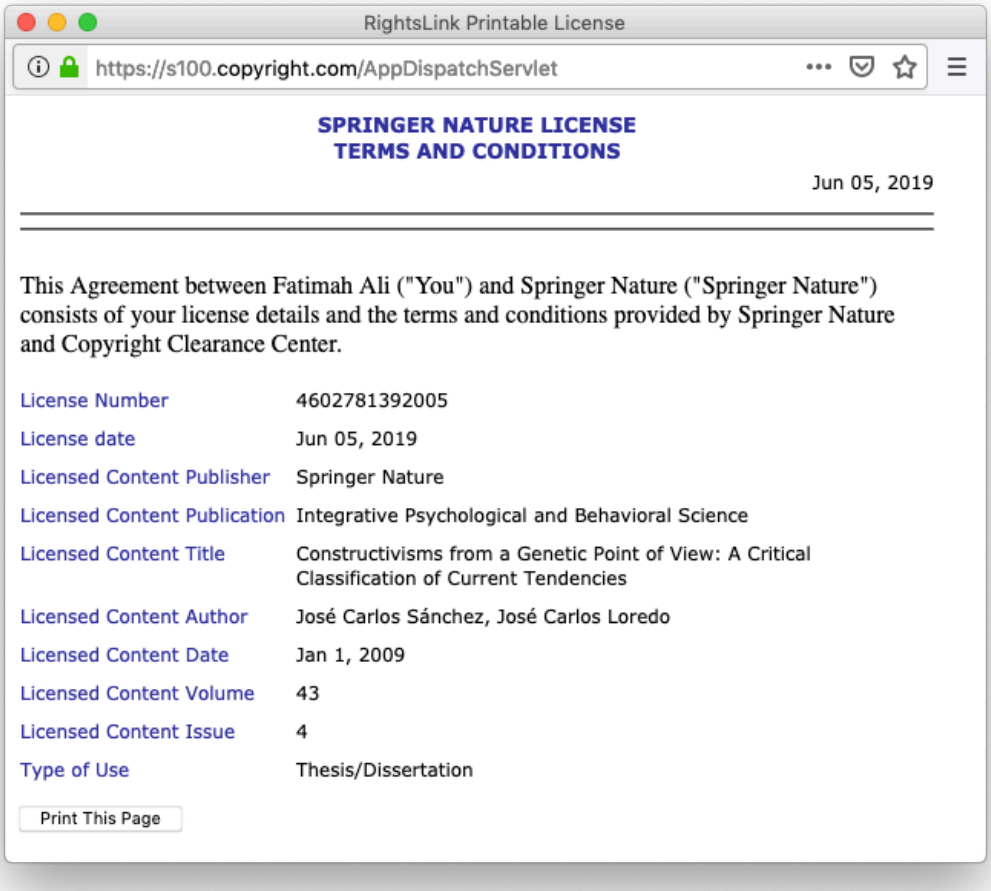
Body Weight Awareness

You are invited to take part in a research study of body weight awareness. The researcher is inviting Nigerian women from south or southeast Nigeria who are 18 years or older, live in middle Tennessee, and have lived in the United States for five years or more to be in the study.

Study Purpose: The purpose of this study is to understand what you think about your body weight.

A Walden University doctoral student is carrying out this study (approval # 06-28-16-0407385). No individual or organization has sponsored the study.

Appendix C: Permission to Reprint Table 1: Contemporary Constructivist Tendencies



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