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Perceptions of Chiropractors in Mississippi Regarding Obesity

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Walden University
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Abstract

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MSNS, Delta State University, 1998

BS, Delta State University, 1996

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Obesity continues to be a growing problem across the United States. Chiropractors have made claims of providing health promotion services within their treatment protocol; however, there is a lack of empirical research regarding a need for the chiropractic profession to train chiropractors to address Healthy People 2020 public health initiatives. The purpose of this qualitative study was to examine the perceptions of Mississippi Delta Region chiropractors regarding their role in obesity management as nonmedical practitioners that implement public health objectives in their practice. The research questions aimed at addressing possible barriers and limitations that influenced chiropractors' perceptions regarding their role in obesity prevention. The health promotion model which recognizes the vital role of the practitioner to the patient relationship in health outcomes, guided this study. Purposeful sampling was used to recruit 11 eligible board-certified chiropractors in the Mississippi Delta. The participants encountered a 1-time session with open-ended interview questions influenced by the hermeneutic tradition. Interview data were analyzed using thematic analysis. The findings indicated that chiropractors could treat obese patients and provide some services that are mostly provided and billed by other health care practitioners. Chiropractors, however, encounter legislative and insurance challenges. Outreach programs and collaboration with other health care practitioners would improve chiropractors' role in obesity management. The study can contribute to social change by increasing understanding of the chiropractic profession and how they may offer health promotion services to improve patient management of obesity and obesity-related illnesses.

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Dedication

This dissertation is dedicated to my family whose support and encouragement facilitated my educational growth, my professors whose patience and dedication made this dissertation possible, and to the memory of my deceased grandparents, Woodrow W. Foster Sr. and Charlie and Arecia Calhoune.

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I would like to thank my dissertation supervisory committee, Dr. Jeanne Connors, Dr. Earla White, and Dr. Vasileios Margaritis, for their unwavering support and patience, providing guidance through the dissertation process and for their ever optimistic attitudes when the journey became frustrating and challenging. I would also like to thank my boss, Mrs. Carlean Horton, for being so patient during the time I have spent fulfilling my degree obligations. I am immensely grateful to each chiropractor that participated in this research study. I could not have accomplished this study without them taking time out of their busy schedule to participate and contribute to the public understanding of their profession. Lastly, I acknowledge my Heavenly Father. It is by faith that I am finishing this journey along with many divinely orchestrated blessings.

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Chapter 1: Introduction to the Study

According to a 2014 Gallup-Healthways Well-Being Index poll, interviews of more than 167,000 individuals indicated that the number of obesity cases continues to rise in the United States; obesity rates reached 27.7% in 2014—more than a 2% increase since 2008 (Jenna, 2015). Walden, Salsbury, and Lawrence (2014) indicated that chiropractic students provided health advice to less than 7% of their overweight and obese patients. The study revealed that little is known about chiropractors' perceptions on obesity management. Understanding chiropractor's perceptions on obesity management is information that could help improve intervention methods. Obesity is associated with other risks such as hypertension, diabetes, stroke, coronary heart disease, and respiratory problems among chronic illnesses (Jensen et al., 2013). According to Scharff (2009), obesity can be linked to situational influences such as when an obese person consumes too much food immediately available even though it will have long-term adverse consequences. Choosing unhealthy foods can lead an obese person to seek medical attention, which encompasses many challenges. Health provisions usually involve psychotherapy and exercise sessions along with dietary advice from a health practitioner (Vine, Hargreaves, Briefel, & Orfield, 2013).

Obesity is a complex disease, and to understand the root causes along with treatment challenges among chiropractic providers, researchers need to examine chiropractors' perceptions of their profession's role in obesity management. Some health care providers may have negative attitudes toward obese patients, which are associated with provider specialty, competency, training, and other personal perceptions (Jay et al.,

2009). My aim was to evaluate the perceptions of Mississippi Delta chiropractors as health care providers who interact with obese and overweight patients. Chiropractic professionals seek to help patients with musculoskeletal disorders and other related ailments (Korpela, & Jones, 2013). Obesity is currently a health issue in the United States, and understanding the chiropractors' perceptions about their roles with obesity management may provide insight to create better treatment protocols. In this chapter, I discuss the background of the problem, the problem statement, the purpose of the study, the research questions, and the conceptual framework. Additionally, I discuss the operational definitions, the assumptions in the study, and the significance of the study.

Background of the Problem

Chiropractors are known for spinal manipulations; however, they encounter diseases outside of musculoskeletal disorders in their daily clinical practice. But chiropractors usually do not address obesity with their patients (Walden et al., 2014). This study is dedicated to interpreting the perceptions of Mississippi chiropractors regarding their ability to address the rising obesity problem. Obesity is an important health problem, especially in the United States where 78.6 million adult citizens are obese (Centers for Disease Control and Prevention [CDC], 2015a). Health practices in the 21st century include integrative health approaches toward treating obesity (Zinn, Schofield, & Hopkins, 2013). An integrated treatment model is one of the most effective approaches to treatment (Collins, Hewson, Munger, & Wade, 2010). Most of the integrated treatment approaches involve cognitive-behavioral psychotherapy and physical reconditioning as well as nutrition intervention (Vine et al., 2013). Researchers using

integrative treatment approaches suggested that like all medical practitioners, chiropractors might have an important role in treating obesity. The integrated approach in obesity treatment has seen an increased involvement of chiropractors addressing obesity (Erwin et al., 2013). Since chiropractic is not widely known as an option for weight loss or nutritional counseling, exploring chiropractors' perceptions about their ability to treat obesity offered valuable insight into the chiropractic profession.

Chiropractors' perceptions may be reflective of their personal experiences, but this knowledge could enhance the health care model for more incorporation of chiropractors in the treatment of obesity (Erwin et al., 2013). A chiropractic practitioner's perception about his or her capability may be an indicator of the potential held by chiropractors and their ability to treat obesity (Erwin et al., 2013). Attitudes of the chiropractors indicate the will and optimistic approaches needed to develop effective treatment protocols (Hannon, 2014). Roles have to be defined, especially in the treatment of such major illness to avoid errors (Sinfield, Baker, Pollard, & Mei Yee, 2013). Obtaining more knowledge on chiropractors' perceptions in their clinical practice setting may aid in the identification of any impending clinical implementation problems and enhance the effectiveness of chiropractic treatment.

This study was significant because it provides perceptions of Mississippi chiropractors regarding obesity. Chiropractic is the most used alternative medicine in the United States and its effectiveness depends on the capability of the chiropractors (Erwin et al., 2013). The Mississippi Chiropractic Association recognized the lack of knowledge and practice application that exists among Mississippi chiropractors in reference to

Healthy People 2010 (Leach, Cossman, & Yates, 2011), which led to the inquiry concerning their knowledge of Healthy People 2020. Self-perceptions can be one significant factor (among others) that could impact the participation role of chiropractors in the mainstream initiatives. This study was also significant because I explored Mississippi chiropractors' perceptions about their ability to play a role in treating obesity, a well-known problem in the region.

Problem Statement

The general problem in the chiropractic profession is that there is no precise model of care delivery aligned with public health initiatives such as obesity; therefore, a need exists for understanding chiropractors' perceptions regarding obesity management (Leach et al., 2011). This gap may be due to a misaligned self-perception among chiropractic practitioners, hindering their ability to treat obesity. Chiropractors play a vital role in minimizing obesity, which is a disease that increases the risk of comorbidities and other complications such as diabetes, hypertension as well as cardiovascular diseases (CDC, 2015b). By 2012, 35.1% of adults aged 20 years and above in the United States were overweight with the CDC estimating that more than one-third of the adult population was obese (CDC, 2015a). In 2014, the prevalence rate of obesity had increased by 27.7% since 2008, a fact that has led to the declaration of obesity as a disease (Jenna, 2015). Obesity has also emerged as possibly the leading cause of death in the United States. The treatment and management of obesity have raised much concern because of the rising cost of treatment that was at $147 billion in 2008 compared to $78 billion in 1998 (CDC, 2015b). The increase in the number of people

suffering from obesity has prompted the need to explore chiropractors' roles in an integrated health care system and their aptitude for treating obesity as a primary care practitioner.

I explored the perceptions of Mississippi Delta chiropractors regarding obesity management in their practice. Chiropractic care is part of a complementary and alternative medicine (CAM) category of services that has positively contributed to U.S. health services and their involvement in the health sector is essential in meeting the long-range goals outlined in Healthy People 2020 on obesity (Bussieres & Stuber, 2013). Several goals exist in Healthy People 2020 (Office of Disease Prevention and Health Promotion, 2017); however, this study focused on chiropractors' perceptions of their ability to impact obesity-related issues because a need exists to understand chiropractors' perceptions about their role in addressing obesity.

Chiropractic practices in Mississippi are similar to other states with certain regulations that govern the practice (Bussieres & Stuber, 2013). However, some characteristics make this state unique, which presents challenges for Mississippi chiropractors (Leach et al., 2011). These characteristics include education, integration into mainstream medicine, and poor stipulation of chiropractic roles in obesity treatment.

Ndetan et al. (2010) pointed out the need for more evidence to show how chiropractors define health promotion and to show which public health promotion practices exist in their practices. According to Walden et al. (2014), little information is available about chiropractors' perceptions of obesity management with their practice setting. According to Leach et al. (2011), chiropractors report that they incorporate public

health goals into their practices; however, there is no evidence-based practice information to support these claims. No standard exists for defining health promotion practices within a chiropractic office. Therefore, it is not clear whether their health promotion practices are comparable to a traditional physician. This study provides health care practitioners and especially upcoming chiropractors with strategies that can be used to prevent obesity and meet the health needs of obese patients in Mississippi's general population.

Purpose of the Study

The purpose of this qualitative study was to explore the perceptions of Mississippi chiropractors regarding obesity treatment. I focused on providing an in-depth understanding of the perceptions of chiropractors toward obesity management and the challenges they experience in this role. Integration of chiropractic services with conventional medicine may improve obesity care and treatment in Mississippi; however, I identified a need to understand the perceptions of the Mississippi Delta region chiropractors regarding obesity management.

Research Questions

I designed the study to examine Mississippi Delta Region chiropractors' implementation of public health objectives in their practice and to obtain information on attitudes, educational background, and local resources. The research questions aimed at addressing possible limitations that may be shaping chiropractors' beliefs and practices regarding their role in obesity prevention. The research questions (RQ) are:

RQ1: What are the perceptions of chiropractors in the Mississippi Delta Region regarding the obesity epidemic in the region?

RQ2: What is the perception of the Mississippi Delta Region chiropractors regarding their role as primary care practitioners in promoting and fulfilling patients' health objectives?

RQ3: What are some of the professional and clinical challenges experienced by Mississippi Delta chiropractors in extending their practices to support weight loss?

Conceptual Framework

The health promotion model served as the conceptual framework for this study. Health promotion was essentially an unexplored field when Dr. Nola Pender, a nursing professional, began her scholarly work in the mid-1970s to recognize that an integrated approach to health prevention could positively influence targeted therapies and individualized interventions (Pender, 1996). Dr. Pender developed the health promotion model to complement other health promotion models. In this model, researchers see health as an active and dynamic state and not purely the nonexistence of disease. The health promotion model is used to focus on improving patients' level of well-being by focusing on individual characteristics and experiences, behavior-specific cognitions, and effects and behavior outcomes. Pender (2011) argued that unique personal characteristics and experiences influence actions. The model draws from nursing and behavioral sciences to factors that affect health behaviors (Pender, 2011). The fundamental concept in the design, health promotion, is defined as "behavior motivated by a desire to increase well-being and actualize human health potential" (Pender, Murdaughn, & Parson, 2011, p. 27). One of the key assumptions of the health promotion model is that practitioners are a critical aspect of the interpersonal environment, which affects individuals (Pender et al.,

2011). The model guides data collection, analysis, and determination of appropriate health care activities and the probable client outcomes that facilitate the involvement of health practitioners in improving clients' health outcomes (McElligott, Capitulo, Morris, & Chlick, 2010).

A collaboration of the chiropractors with other health facilities in Mississippi may enhance the practice outcomes and improve the attitudes of caregivers. Perceptions and opinions of stakeholders are crucial in the development of right attitudes and interoperability of roles for patient outcomes, especially with obese patients (see Figure 1).

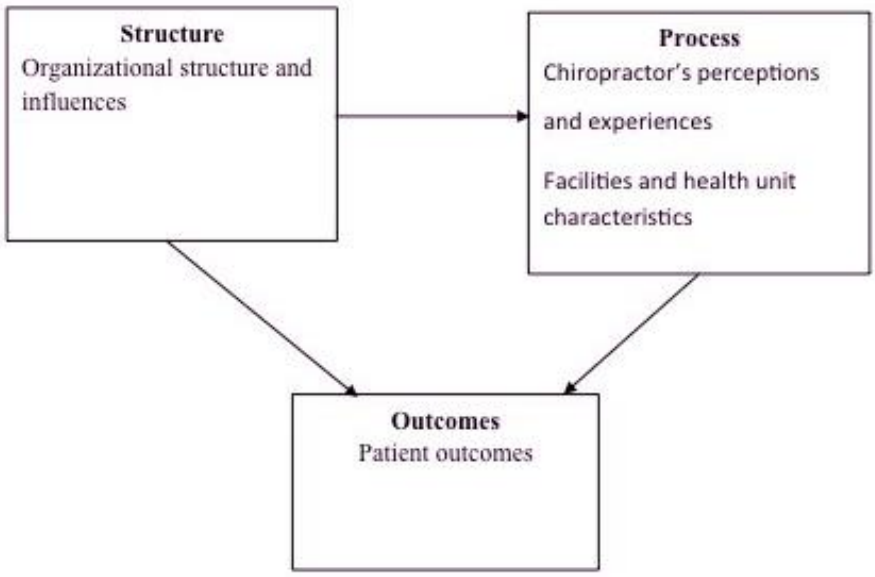

Figure 1. The relationship between variables. Adapted from *Health Promotion in Nursing Practice* (6th ed.), by N. Pender, C. Murdaugh, and M. Parsons, 2011. Copyright 2011 by Pearson Prentice Hall.

Nature of the Study

I used a qualitative phenomenological design in the study because I intended to gain knowledge about chiropractic practitioners' perceptions on treating obese patients in their practice (Kumar, 2012). The study design incorporated open-ended interview questions that could be used to maximize data collection through interviews in the chiropractors' office settings. I expected that the answers from the interviews would provide significant information regarding chiropractors' perceptions about obesity and their role, if any, in treating obese patients in their practice.

I carried out this study with the intention of obtaining a better understanding of chiropractors' perceptions about their role to participate in carrying out health initiatives in their practice, in particular obesity management, in the Mississippi Delta. For this research, I used semi structured open-ended interview questions to collect data about the chiropractors' perceptions. I used the data to answer the research questions and provide an in-depth understanding of chiropractors' perceptions about treating obese patients. Obtaining qualitative data from the chiropractors in their work settings through interviews offered more insight into the operational environments and the support provided by various federal and county organizations to enhance the success of the chiropractic care (Khorsan et al., 2013).

In the study, I investigated the perceptions of chiropractors in Mississippi regarding obesity. I collected data through in-person private interviews with chiropractors in their work settings. The purpose of the interview questions was to learn the chiropractors' perceptions. I transcribed all interviews and prepared the data for further

analysis. Further analysis of the data included the use of NVivo software to identify themes that address the research questions and provide answers to the study.

Operational Definitions

This section includes operational definitions for the key terms used in this study. The definitions for these terms are below.

Chiropractors: A professional in health care that focuses on the treatment of neuromuscular ailments through manual adjustments and pain relief (World Health Organization, 2005).

Chiropractors' perceptions: The views, beliefs, attitudes, and thoughts of the chiropractor in regard to patient relationships and practice management (Smith &Carber, 2009).

Complementary and alternative medicine (CAM): Medical practices and products that are not part of the standard care (White House Commission on Complementary and Alternative Medicine Policy, 2002).

Conventional medicine: A system that is used by health care professionals to treat diseases and symptoms using surgery, radiation or drugs (Van Gerwen et al., 2009).

Self-perceptions: The act of apprehending a concept through personal cognition or understanding (Van Gerwen, et al., 2009).

Assumptions, Limitations, Scope, and Delimitations

Assumptions

In hermeneutic phenomenology studies, assumptions appear before the commencement of the research to avoid confusion or improper understanding (Kumar,

2012; Sloan & Bowe, 2014). I used a hermeneutic phenomenological design to develop research questions to draw meaning from chiropractors' perceptions that may not otherwise arise in regard to obesity management. In the investigation of the perceptions of Mississippi chiropractors regarding obesity treatment, I made certain assumptions: in the state of Mississippi, chiropractors offer treatment for other ailments other than obesity; obese patients reside in Mississippi; obese patients in Mississippi undergo conventional medical treatment; some chiropractors in Mississippi do not incorporate obese patients in their practice; and there is no integration of chiropractic services and obesity management with other health facilities. I made several assumptions while using questionnaires to gather information including that all the respondents understood the questions consistently, that respondents had the information necessary to answer the questions, and that questions were formulated in a way that led to informative answers from participants. I also assumed that the participants answered honestly, that I used an adequate sample, and that the data collection reached the principle of saturation.

Scope and Delimitations

The scope of this study was interviewing chiropractors in the Mississippi Delta to gain a better understanding of their perceptions that shape their practice and how they treat obese patients. Past experiences helped to explain the present perceptions that were also part of the scope of the study, which included the investigation of chiropractors' self-perceptions in regard to obesity treatment. Personal perceptions demonstrated by chiropractors in the Mississippi Delta may have influence the practitioners' abilities to

effectively improve outcomes of various ailments encountered among the general population.

I limited the study population to chiropractors in the Mississippi Delta because chiropractors in other regions may have different perceptions that do not reflect or relate to the population of patients being served by chiropractors in the Mississippi Delta; their perceptions may best describe the phenomenon that is possibly influencing their treatment of obese patients. For chiropractors to be eligible to participate in the study, I expected them to have worked in the Mississippi Delta for more than 3 years, handling obese patients, both children and adults. This ensured that they had adequate information regarding the topic of study. Chiropractors who had worked in other regions but were new in the Mississippi delta—that is, they had been in the region for less than a year—were not eligible to participate in the study. Chiropractors who had worked for 3 years or more but had not handled obese patients were not considered for the study.

Limitations

A limitation of the study could be that some chiropractors had personal biases that negatively impact treatment planning and patient outcomes. Another limitation included the insufficient resources to research the phenomenon such as finances, time, and human resources. To counter this limitation, I limited the interviews to chiropractors from various locations within the Mississippi Delta. I chose the study participants from chiropractors practicing in a private practice setting; therefore, they did not require approval from outside authorities. The potential participants received a letter requesting participation and permission to conduct the interviews in their work settings (Appendix

F). Seeking to interview at least 10 chiropractors could have created the limitation of a small sample size. Other limitations included some chiropractors sharing office spaces, which imposed on the privacy needed to conduct interviews, and data saturation had a probability of occurring before some areas of the Mississippi Delta could participate.

One limitation of the methodology was that I did not interview the policy makers in the health sector about the state of chiropractic services in the region. Because I did not include policy makers in this study participant pool, the interview questions included questions regarding state recognition of the chiropractor's practice allowing the chiropractors to provide insight to address this limitation. Choosing participants from the Mississippi Board of Chiropractors could have been a limitation, as participants coming from a similar environment may have led to a lack of variety in perceptions. I evenly distributed the research participant solicitation in the Mississippi Delta region to address this limitation. I asked open-ended interview questions during the interview to eliminate my own biases or opinions based on my experience as a chiropractic patient. I developed the open-ended questions, a standard interview protocol, digitally recorded the interviews to eliminate interviewer bias, participants' response bias, and recall bias.

Significance of the Study

Chiropractors see obese patients on a regular basis, yet little is known about how chiropractors implement wellness prevention strategies in their practice like obesity education (Leach et al., 2011). The objective of this study was to explore how the perceptions of chiropractors in the Mississippi Delta influence their implementation of obesity management protocols within their practice, specifically the public health

initiative in Healthy People 2020. I sought to explore chiropractors' perspectives of how they manage obese patients in their office with open-ended interview questions. Comprehensive health teams that integrate chiropractors with traditional medical practitioners may offer Mississippi legislators and the federal government insight on how alternative medicine may better assist obesity prevention strategies in the United States.

The study of Mississippi chiropractors provided the additional knowledge needed to understand the challenges, barriers, and strategies needed to improve implementation of weight management treatment protocols among chiropractors. Walden et al. (2014) conducted a case study of four chiropractic faculty and two (8th–10th trimester) students that revealed further training might be needed to improve chiropractic weight management implementation into their practice. Insight and information about the various roles carried out by chiropractors in obesity treatment are necessary for understanding whether chiropractors have specific roles. A clear understanding of the chiropractic profession was important in the implementation of treatment plans that integrate chiropractors with conventional medical practices. Mississippi presents a broad area of study and relevant authorities that obtain information on strategies to regulate the practice. The information gathered from this study is important for future research into alternative medical practices that are instrumental in treating chronic conditions; this study offers information regarding the perceptions of unconventional medical practitioners such as chiropractors regarding their roles in dealing with obese patients. The results of this study may contribute to positive social change by providing an in-depth understanding of chiropractors' perceptions regarding obesity management in their

practice, thereby providing information that may enhance obesity management protocols and an inclusion of chiropractors in the patients' care plan. As a result of this study, information may emerge on chiropractors' obesity management and their ability to effectively implement the public health goals outlined in Healthy People 2020 (Office of Disease Prevention and Health Promotion, 2017).

Summary

Obesity is considered a complex, growing disorder in the United States. In Mississippi, various interventions have been explored to deal with obesity, mostly from conventional medicine. Therefore, there is a need to study the perceptions among Mississippi chiropractors along with their ability to incorporate primary care objectives into their practice to address the needs of obese patients.

I sought to investigate perceptions of chiropractors regarding obesity management in their clinic. The professionals' environment and culture may affect their ability to integrate obesity treatment into their practice. The purpose of this study was to use a qualitative framework to explore chiropractors' perceptions of treating obesity. I based the qualitative research approach on the use of various interpretative techniques that helped to describe, decode, and interpret research issues to establish meaning (Loh, 2013). The Mississippi Board of Chiropractors helped in the identification of the various professionals and their locations to ensure participants represented the Mississippi Delta. At the time of data collection, a review of the literature revealed a gap regarding the importance of chiropractic services to provide interventions for obesity. Chiropractic practices have significantly contributed to complementary and alternative medicine

(Flowden et al., 2015). The integration of conventional medicine and chiropractic services in Mississippi offered a more comprehensive strategy for obesity treatment.

Chapter 2 covers literature related to the phenomenon of chiropractors and obesity management. This chapter provides an overview current and historical literature on obesity, obesity treatment, multidiscipline practices, health professionals, and chiropractors. Chapter 3 provides details on the qualitative method chosen for the study—hermeneutic phenomenology. In Chapter 3, I also outline the method for data collection and data analysis. In Chapter 4, I present the results and Chapter 5 provides the discussion of the results, conclusions, and recommendations.

Chapter 2: Literature Review

Introduction

The purpose of this qualitative study was to explore perceptions of Mississippi chiropractors regarding obesity treatment. The general problem was that in the chiropractic profession, there is no clear model of care delivery aligned with public health initiatives such as obesity; therefore, there was a need to understand chiropractors' perceptions regarding obesity management (Leach et al., 2011). The literature on health care providers (HCPs) revealed the self-perceptions of the health care providers and the challenges that health care providers face in obesity management. Many studies exist on obesity and the management of obesity, and researchers have explored the causes and effects of obesity. A broad range of literature exists on obesity management on the patient as an individual and the aspects of the health care system, particularly the HCPs (health care providers). This literature review includes the rationale for selecting the phenomenological methodology for inquiry on the perceptions of Mississippi chiropractors. The literature review includes four sections: (a) obesity, providing meaning, causes, treatment, and management; (b) multidisciplinary team approach; (c) chiropractic, providing insight on their role in obesity treatment, aptitude, and ability; and (d) theory.

Literature Search Strategy

I obtained prospective articles mainly from general databases containing peer-reviewed articles. I used databases such as PubMed, ProQuest, EBSCOhost, Google Scholar, and in Walden University's databases—namely, Nursing Books from Ovid,

MEDLINE with Full Text, ProQuest Health & Medical Complete, ProQuest Nursing & Allied Health Source, and CINAHL Plus with Full Text and Dissertations & Theses. I retrieved articles that were primarily published in English and from peer-reviewed journals. The literature review also included excerpts from textbooks and reputable online sources.

The iterative process, using several resources, provided a search revealing the most current research on the phenomenon within a 14-year period. The study focused on articles that provided historical insight and information about articles that addressed the research questions. Literature searches using keywords and terms yielded articles from 2003 to 2017 that were referenced in regard to the research study; older articles provided historical information.

I focused on the core features of the past studies and their respective findings associated with the patient and professional viewpoints on the perceptions of obesity management health care delivered or received. I used the following terms in my search: *obesity, obesity management, obesity management in primary health care settings, preventing and treating obesity, attitudes of primary health care providers involved obesity management, beliefs of primary health care providers involved in obesity management, attitudes towards obese patients, role of chiropractors as primary health care providers in obesity management, and obesity in Mississippi*.

Conceptual Framework

Health Promotion Model

This study used the health promotion model as a guide; Pender developed the model in 1982, which was revised in 1996. The theory has five main concepts: (a) person, (b) environment, (c) nursing, (d) health, and (e) illness. A person is seen as a bio-psychosocial organism that is somewhat affected by the environment it resides in but also endeavors to craft an environment in which intrinsic and acquired human possibilities can be totally expressed (Hannon, 2014). As such, the relationship between the environment and person is reciprocal and that an individual's traits together with life experiences affect behaviors and health behaviors.

Environment is viewed as the cultural, physical, and social context in which life develops (Rosa Fortin et al., 2014). It is possible for an individual to manipulate the environment to form a positive context of facilitators and cues for health-enhancing behaviors. The concept of nursing is a collaboration of families, communities, and individuals with the aim of creating the most positive conditions for well-being. In the health promotion model, health refers to the actualization of acquired and inherent human capability through goal directed components, satisfying relationships and competent self-care with others while modifications are made as desirable to sustain harmony and structural integrity with pertinent environments (Pender, 2011).

Health is developing life experience, which includes community and family health. Illness represents a distinct event through a lifetime that is either acute (short duration) or chronic (long duration) and affects an individual's continuing pursuit for

health. The health promotion model reflects on many assumptions that reflect both behavioral science and nursing perspectives (Pender, 2011). Individuals seek to develop living conditions through which they can express their best health, as people have the aptitude for deep self-awareness, which includes evaluation of their competencies. The model also supposes that people value progress in directions seen as positive and seek to attain a balance between stability and change (Pender, 2011).

Individuals try to standardize their behavior, and their bio-psychosocial involvedness gradually alters their environment over time. Health professionals are part of the interpersonal milieu, which exercises influence on individuals throughout their lifetime, and the self-initiated reconfiguration of person-environment cooperative patterns that are vital to change in behavior.

The health promotion theory is based on propositions that form the basis for exploratory work on health behaviors (Pender, 2011). Those who use the theory hypothesize that preceding behavior and hereditary are acquired traits, which influence beliefs and impact the portrayal of health-promoting behavior (Pender, 2011). In this theory, assumptions exist that people pledge to engage in actions from which they expect to derive individually valued benefits, and supposed obstacles can hamper pledge to action. When a person has self-efficacy to perform a given act, it is bound to increase the probability of pledge to act and the definite performance of the conduct (Pender, 2011).

A greater professed self-efficacy leads to fewer supposed barriers to a particular health behavior. Moreover, a positive feeling toward a behavior leads to superior perceived self-efficacy (Collins et al., 2010). A person is more probable to take part in

health-promoting actions when significant others model the performance, suppose the conduct to take place, and offer support and assistance to empower the behavior. Peers, health care providers, and families are essential sources of personal influence that can decrease or increase commitment to engagement in health promoting actions (Tanu, Anthi, & Sarah, 2014). Situational effects in the external milieu can have a positive or negative effect on participation or commitment in health-promoting performance and that the greater the pledge to an explicit strategy of action, the more probable the maintained over a longer time (Pender, et al., 2011).

Applicability of the Model

Health promotion has been applied in many studies. McGuire (2011) explored the factors affecting health promotion activities in older and midlife Australian women who have a chronic disease. They successfully explored women's perceived obstacles to health promotion activities to decrease modifiable risk factors and the association of distinguished barriers to vegetable and fruit intake, smoking behavior, physical activity, and body mass index (BMI; Pender et al., 2011). They established that Australian women who have chronic diseases encountered barriers in access to health care.

Researchers explored how health practitioners relate to other concepts such as environment, which is the health care system, to ensure the prevention of diseases. In a wider perspective, Donev et al. (2007) explored how the health promotion model can influence disease prevention. I employed health promotion model to evaluate whether health practitioners have a role in the prevention of diseases (Pender et al., 2011). The findings are pertinent for the responsibility of chiropractors in the prevention of

complications. The observations in this study, which are beliefs, attitudes, roles, self-perceptions, and barriers, fall within the concepts of the health promotion model. The health promotion model is applicable in the current research as it is characterized by the five concepts of the model, which include the person (the obese patient), environment (Mississippi Delta region), nursing (chiropractors), health, and illness (obesity) that make up the health care system.

Literature Review

In this section, I present a review of literature pertinent to the research problem. The literature includes similar studies and literature that supports the research problem as well as literature on chiropractors and their role in health and other obesity management practices.

Obesity

Obesity is a label for weight ranges that are greater than typical healthy values for a particular height (CDC, 2009). BMI also shows the weight range that increases the chances of specific diseases and associated health problems. The weight measurements use body mass in which BMI is the measuring unit. BMI is primarily used to specify ranges associated with a health hazard, in which the population is clustered into four groups (Adami & Vasconcelos, 2008). People with a BMI <18.5 are classified as underweight, BMI = 18.5-24.9 have healthy weight, BMI = 25-29.9 are overweight while those with BMI ≥ 30 are classified as obese (CDC, 2009). CDC (2009) noted that BMI is suitable as an effortlessly calculated pointer of obesity and health risks; however, it

should be applied alongside other methods of approximating composition, body size, and risk.

In the United States, the public health efforts are mainly focused on obesity and childhood obesity. The prevalence of obesity in the United States in 2011-2012 was 34.9% for adults and 16.9% among the youth. Between the years 2003-2004 and 2011-2012, the prevalence of obesity among children between 2 years and 5 years decreased from 14% to 8% respectively and increased from 31.5 % to 38% among women aged more than 60 years respectively. Diabetes prevalence is still high and hence a main issue of concern in the United States (Ogden, Carroll, Kit, &Flegal, 2014). In Mississippi, the prevalence of obesity ranged from 30.5% to 44.2% in 2009. The highest prevalence of obesity was observed in the Delta region and along the Mississippi River. The factors that were observed to influence the prevalence of obesity were sex, race, education, and employment status (Zhang, Zhang, Penman, & May, 2011).

Causes of Obesity

According to Bocarsly, Powell, Avena, and Hoebel (2010), obesity is caused by an imbalance between consumed calories and expended calories energy; weight gain occurs when calories consumed surpass calories expended. Energy expenditure and intake are determined by a number of factors that can generally be classified into biological, behavioral, and environmental factors. Biological factors include genetics and metabolism, behavioral factors include physical activity, and environmental factors include external aspects such as food prices (Jensen et al., 2013). An escalation in obesity should correspond to reasonable fluctuations in energy balance. Considering the

comparatively short time over which the increase has taken place, it is reasonable to rule out genetic causes (CDC, 2015b). Biological factors such as metabolism can partly reveal the increase in obesity; environmental and behavioral changes can cause the increase (CDC, 2015b). This information shows that people are eating more but exercising less.

Obesity tends to run in families, which supports a genetic cause (CDC, 2015b); however, families also have similar lifestyle and diet habits that contribute to obesity (Adami & Vasconcelos, 2008). Separating the environmental aspect of a family from genetic factors can be challenging. Psychological factors might also affect eating lifestyles (CDC, 2015b) such as people eating as a response to negative stimulants such as anger, boredom, and sadness (Adami & Vasconcelos, 2008).

In this 21st century society, it is likely that technological changes have contributed to the obesity epidemic principally for its effect of decreasing energy expenditure in the workplace (Jepsen et al., 2014). Technological advancements in the workplace are responsible for a fraction of the rise in obesity because the significant change away from labor-intensive employment has had a considerable contribution to the rise in obesity (Fock & Khoo, 2013). The decline in manual work contributed to a reduction in energy expended (Annesi & Marti, 2011). The gradual reduction in manual labor started before the increase in obesity, which suggests that other factors are more probable cause for a rise in obesity.

Obesity is associated with other diseases, which include high blood pressure, type 2 diabetes mellitus, hyperlipidemia, heart disease, stroke, respiratory complications, osteoarthritis and increases occurrence of some forms of cancer, and an increase in

mortality (Bocarsly et al., 2010; Jensen et al., 2013). Obesity is also associated with several illnesses including depression, Cushing's syndrome, hypothyroidism, and neurological complications, which may lead to overeating (Adami, & Vasconcelos, 2008). In addition, drugs, such as steroids and selected antidepressants, might lead to weight gain (Mechanick, Garber, Handelsman, & Garvey, 2012; Wadden, Webb, Moran, & Bailer, 2012).

The presence of obesity in an individual may lead to an increase in morbidity and reduced quality of life when compared to individuals who maintain a normal average weight (Malterud & Ulriksen, 2011). Other health problems and diseases associated with obesity include gallstones and gallbladder disease, liver disease, and gout (CDC, 2015a). Breathing complications can occur in which a person stops breathing for a short period. Reproductive complications in women include infertility and menstrual irregularities. Obesity can also affect an individual's well-being such as being associated with lower educational accomplishment and lower income which is attributed to discrimination against obese individuals (Creel & Tillman, 2011).

Obesity Management

In the 21st century, the prevention of obesity has become a vital part of the health care system and public health system (CDC, 2015a). Effectively encouraging patients to lose weight is a significant challenge for health care providers in management of obesity (Vine et al., 2013). Raising the issue of obesity can be an intricate issue and obese persons are at times not prepared to start the dialogue and treatment program when required. The patient must be ready for change to increase the likelihood of success. This

readiness for change is greatly affected by patient-provider relationship in both evaluating and creating the enthusiasm for change in obese patients. The patient-provider relationship is central to patient readiness to start and observe lifestyle modifications and the accomplishment of any such efforts (Aucott et al., 2009). Overall, research has shown that health care providers of many types, including chiropractors, are skeptical about the likelihood of substantial and continued weight loss among obese persons without undertaking bariatric surgery (Jay et al., 2009). Patient readiness to try small lifestyle changes such as avoiding foods related to obesity is a stronger suggestion of their eagerness than the patient's tally on an official readiness evaluation (Wadden et al., 2012). As such, there is a need for methods to motivate patients to take up lifestyle changes and other changes that will facilitate the treatment of obesity.

Treating Obesity

According to the CDC (2015b), obesity is a complex health issue with many factors causing or influencing the disease such as behavior, environment, and genetics. Primary care practices comprising internal medicine and family, obstetrics, gynecology, and pediatrics are a vital part of managing obesity (Rurik et al., 2013). These professionals regularly act as the patients' key point-of-contact within the health care system. The increasing array of obtainable therapies needs professionals and patients to make careful choices on which therapies are suitable to the prerequisites of an individual patient (van Gerwen et al., 2009). Some treatment choices are partly supported by clinical procedures, treatment expenses, therapy convenience, and the motivation and knowledge

of the health provider who introduces them (Onubogu, Graham, & Robinson, 2014; Rosa Fortin et al., 2014; Sinfield et al., 2013).

Consequently, the efficiency of the obesity care offered is likely to be affected by the connection between patients and the health care system, which include the health care professionals in that system. Integrating meal replacement in a customary lifestyle change can be a significant and independent contributor to the treatment (Thomas & Harden, 2008). Suitable tools can positively influence a fruitful patient to health care provider relationship possibly leading to a lifestyle change for weight control within the time limitations in a common office visit.

Successful obesity management entails a number of strategies and techniques that include physical activity, dietary therapy, pharmacotherapy, surgery, and behavior therapy as well as blends of these strategies (Fock & Khoo, 2013; Rosa Fortin et al., 2014). Pertinent treatment approaches can also be employed to nurture long-term weight control and inhibition of weight gain. The resolution to lose weight should be made cooperatively between the patient and clinician. Patient investment and participation is indispensable to success (Wadden et al., 2012). In the setting of weight lose goals, the standards propose an initial goal of 10% baseline given it is evident that a person can lose 8% of body weight in six months (Fock & Khoo, 2013).

Initially, the weight loss stages should include follow-up visits that measure BMI and reassessment strategies should be developed to establish any factors contributing to the patient's failure followed by a re-adjustment that takes into consideration the determined factors (Jensen et al., 2013). In the assessment, the chiropractor should look

for the effects of pharmacotherapy if it is being used. When the patient has successfully completed the first phase of weight loss, he or she enters the stage of weight maintenance and long-term observing (Waring, Robert, Parker, & Eaton, 2009). It is important for the practitioner to be aware that some individuals are more likely to gain or lose weight on a specified regimen. Moreover, the degree of compliance is not always the reason for weight loss.

Obesity is multifaceted; consequently, the complexity may necessitate the need for collaboration with other health care providers (Dietz et al., 2015). For instance, in the change of lifestyle, a patient might need a nutritionist or a dietician to offer nutrition related information. In addition, co-morbidities could cause obesity such as diabetes, cardiovascular diseases, and kidney problems. Medical practitioners with relevant expertise should address all health problems. As such, a need exists for approaches that can offer concerted, evidence-based, and efficient interventions. One approach that meets the stated criteria is Wagner chronic care model (CCM) (Coleman, Austin, Brach, & Wagner, 2009). This approach offers a framework that seeks to improve patient results and emphasizes on informed, dynamic patients, and organized, pre-emptive health care teams. The model also offers a functional scheme and a set of structural principles for elementary changes to the organization and delivery of better obesity management. Vital constituents of the model comprise patient-centeredness, a combination of case-management, population management, decision support, and the methodical using of multidisciplinary teams of nurses, physicians, and other health experts that co-operate with patients in their efforts to control obesity over time (Waring et al., 2009).

Millions live with chronic illness; the ideologies of the care model emphasize the need for health care reform (Coleman et al., 2009). These ideologies give emphasis to greater dependence on community policies and resources, health system reform, supporting patient's self-management, supporting clinical decision and clinical information structures to enable fruitful communications between each active patient and an equipped proactive team of professionals (Gabbay et al., 2011). The ideology behind this model implies that health care will be more effective if there is a shift from only reacting to patient chronic illnesses to a more preventive, proactive approach. In the end, if implemented, the model may eventually promote patient-focused care that offers patients with the resources, knowledge, and the necessary support to enable them better management of their own disease.

Multidisciplinary Teams Approach in Obesity Management

The frequency of obesity and its consequences on personal health and wider effects in the society make it necessary for health care professionals to work collaboratively to prevent, identify, treat, and manage obesity in a more aggressive manner (Vine et al., 2013). The first step is to appraise existing practices to establish if obesity evaluation and management are integrated into routine care. Establishing health care teams to care for obesity can be more efficient than a practice with only one expert (Zinn et al., 2013). However, the use of professionals that cut across practice and departmental boundaries can lead to administrative and communication challenges. The close incorporation of specialists and primary care practitioners may increase the quality of health care provided to obese patients when shared expectations and good

communication between different health care professionals are essential to both eminence of care and practitioner consummation (Fitch et al., 2013). In addition, multidisciplinary teams may enhance patient safety, enhance clinical results, and save medical expenses.

Even though a multidisciplinary team has benefits, there exists a scarcity of literature to address how to promote better cooperation and structure in primary care (Gupta et al., 2010). Physicians may be dissatisfied with teams that consists of interdisciplinary care and preferred arrangements to include other professionals and the backing their colleagues' when present new systems for obesity management (Roth, Foraker, Payne, & Embi, 2014). In addition, there exists a scarcity of literature that explores whether co-operation influences the implementation of guidelines in general medical practice and obesity management. Similarly, collaboration between secondary and primary care practitioners has not been explored regularly.

Practices that collaborate as a team of professional in obesity treatment have included nurses as part of obesity management (Brown et al., 2007). Health care professions (HCPs) who handle obese patients feel they are capable and should give obesity advice; however, only medical practice professionals have established a comprehensive part in obesity management (Brown et al., 2007). This scenario has been encouraged by a number of contractual changes that stimulate all-purpose practice nurses into a health advancement role in relation to managing of long-term conditions. However, some have not been specifically trained to handle obese patients as per the set standard. The reputation of a harmonized, multidisciplinary team approach is generally included in official positions and statements on obesity management such as the American Dietetic

Association (Mechanick et al., 2012). In obesity management, the multidisciplinary teams might include nutritionists, dieticians, clinical psychologists and exercise specialists.

Primary care physician. In most multidisciplinary health care groups, obesity management physicians are part of the team of health professionals and can be leaders of the group (Gabbay et al., 2011). However, it is likely that physician-led medical teams for obesity weight management has its challenges and might not be effective from an epidemiological viewpoint (Vine et al., 2013). The extent of obesity is undoubtedly on the rise and may be attributed to an increase in unbalanced food choices and a decrease in physical activity (Chan & Woo, 2010; Hurt, Kulisek, Buchanan, & McClave, 2010). As such, a physician cannot concurrently concentrate on or dedicate their time to take part in psychology, exercise physiology, physical therapy, dietetics, and other supportive professions. In addition, obesity has been known to be associated with other co-morbidities hence requiring more time attending to such patients. In an obesity management, "meaningful" weight loss can be achieved by use of a team led by nurses and assisted by dieticians (Khademi, Rahim, & Mohammad 2012). Physicians are essential since they offer the required medical preparation and investigative and prescriptive aptitude to deal with morbidity, which is beyond the range of other practitioners.

Dietician. The registered dietician (RD) is the acknowledged expert of choice regarding nutrition and food (Gabbay et al., 2011). In the United States, dieticians have a consistent curriculum and a national examination, experience, standards of practice, as

well as, an integrated governmental and public message that are supported by licensure. Khademi et al. (2012) noted that even though long-term weight management through energy limitation is broadly acknowledged to have a low success rate, there are nevertheless a number of dietary approaches that can advance the health of obese persons. A modified macronutrient profile, consideration of glycemic index, selection of dietary fat types, seasonal and daily nutrient timing, planning, and other likelihoods help shape a suitable nutrition communication to patient (Khademi et al., 2012)

Exercise physiologist. A majority of obese management teams include an exercise physiologist. In the United States, there is an enforcement of exercise physiology licensure that regulates the profession (Gabbay et al., 2011). In teams without an exercise physiologist, the exercise treatment is either handled without physician's control or shared among dieticians, personal trainers, or physical therapists even though they are not fully trained in anticipatory exercise treatment, adaptations, and other associated facets of weight management. This shows that the lack of a rigorous government guideline for exercise professionals, in a more and more privatized and fragmented and medical system, can create public misunderstanding about who to trust for this indispensable phase of obesity management (Vine et al., 2013). For instance the dieticians in the U.S. undergo a solitary exercise-specific course; hence, there is a need for further accreditation.

Below par defined definitions and under-developed recommendation procedures are challenging since literature confirms recounting the multiple health roles that are beyond weight loss are available through suitable exercise for obese persons (Lee, 2012).

Nationwide examination, university accreditation, and board certification reflect the current existing licensed occupations. Comparable exertions are also executed in larger exercise-associated bodies like the American College of Sports Medicine (ACSM). The inevitability of a suitable recognized exercise treatment for obese persons will necessitate competency-standardization and cooperation across the occupations.

Psycho-emotional Functioning and Adoption of Positive Self-care Behaviors

There is a relationship between psycho-emotional functioning of an obese patient and the outcome of patient (Puhl & Heuer, 2010). The psycho-emotional functioning is greatly influenced by levels of stigma, which can be positive or negative. The stigmatizing experience of an obese patient and negative psycho-behavioral reactions, like low self-esteem and maladaptive coping, can significantly hinder the obese patient's capability to embrace positive self-care behaviors. Puhl and Heuer (2010) conducted a study where they surveyed 2449 adult obese women and found that most participants had experienced modest depressing symptoms. Further the results showed no considerate association between depressive symptoms and self-esteem, and stigmatizing predicaments. The negative experiences at hands of professionals and personal negative self-image contributes to the unwillingness among obese patients to access health services and participates in positive health lifestyles and behaviors (Tanu et al., 2014). The above findings show how patients' negative perceptions of themselves affect their preparedness to interact with health-care professionals and even affect their opinions on how they think they will be attended to. As such, obese patients require a positive encounter with health-care professionals to construct trust not merely on how they will be

attended to in future but also their confidence in professionals' clinical verdicts. This conviction might also lessen patient's feeling of powerlessness given that they can have a substantial role in making care decisions and can also lessen treatment evasion as they can be more enthusiastic to seek care in the future.

Professional Attitudes and Beliefs about Obesity

Most health-care professional dealing with obese persons were of the view that very overweight people ought to take more charge by accepting and dealing with the causes of their weight condition (Puhl & Heuer, 2010). There is also a variation between the implicit negative beliefs and attitudes toward obese person between professionals and the general population. Health professionals exhibited an anti-fat partiality on the measures of implicit belief and implicit attitude. However, paralleled with the general populace, health professionals had somewhat less stigmatized opinions of obese persons attributed to their experience of taking care of the obese patients. Negative attitudes to obese and overweight persons turned into prejudiced behavior against these persons (Harris & Lloyd, 2012). When comparing people with normal weight to those who are obese, there are considerably lesser self-acceptance totals, more regular daily discernment, and increased probability to experience health-care-associated refinement (Harris & Lloyd, 2012). Additionally, obese persons were more probable to accredit their discriminatory experiences to their weight condition as opposed to any other reason.

Merrill and Grassley (2008) explored the experiences of obese women with the health care system and found that obese women struggled to fit in when compared to those with normal weight. In addition, during treatment they experienced challenges

comprising technical and equipment failures, limited time and subsequently limited support from health care providers. The study also found that some obese women patients had been dismissed by health professionals and experienced feelings of being humiliated in health-care encounters. Obese women patients felt not quite human given that they experienced stigmatization merely because of their body size. The scenario leads to lesser satisfaction of the patients where some feel that they are not fully attended to simply because they are obese. The combination of the above scenario led to situations where most respondents in the study posted that doctors took insufficient time to attend to their weight-related challenges and often the doctor rushed through. Attributed to the negative experiences of the patients in the study, more value was put on family nurse or doctor. This is mainly because these persons are more probable to take additional time and deliberate the patients' health anxieties and are more likely to be friendly and familiar.

It is clear that counseling might increase the chances of tried weight loss among obese persons; hence, it is vital to recognize the factors that are barriers to the lack of counseling (Jones, 2010). A lack of efficient treatments, suitable reimbursement, and the credence that persons have a lower chance to flourish, as well as, views about the basis and responsibility for obesity is some of the factors influencing their choice not to deliberate weight concerns (Gorin et al., 2014). The chances of getting weight loss counseling are high in relentlessly obese patients, persons with weight-related co-morbidities and those with recorded obesity diagnoses. Patients exhibiting co-morbid conditions associated to obesity are likely to get counseling more regularly than their alike obese counterparts (Waring et al., 2009).

Research suggests that chiropractors do not view obesity as an autonomous medical condition. Even for obese patients whose condition has been documented, chiropractors merely discuss weight 65% of the time, commend exercise 62% of the time, and in 25% of the time they refer the patients for nutritional therapy (Erwin et al., 2013). The low levels of referral and counseling show that there are obstacles preventing patients and chiropractors from effectively initiating weight discussions (Waring et al., 2009).

Patient Perceptions

The patient needs to be a participating partner in the discussion and must take part in setting objectives for lifestyle change (Gorin et al., 2014). It is the patient's responsibility to make changes to realize weight loss given that the patient has in mind what they would like to achieve and how to do it (Malterud & Ulriksen, 2011). In addition, the goals of the patient might differ from those of the health practitioner. In this line, the practitioner should look for information and help the patient make choices but cannot force the patient or endorse goals on them.

The physicians' attitudes toward the patients' ability to make lifestyle changes are persuaded by perceptions from viewing obese patients as noncompliant, awkward, lazy, lacking self-control, and weak-willed which tend to have negative implications of patient-provider relationship (McConnon et al., 2013). When family physicians are regularly concerned that obese and overweight patients are uncomfortable they are less likely to have a proactive approach; consequently, they will be unenthusiastic in the weight management exercise (Ferrante, Piasecki, Ohman-Strickland, & Crabtree, 2009).

Physicians are afraid they might offend the patients and lose them completely. As such, few physicians initiate the weight discussion subject with obese patients.

Challenges and Barriers in Obesity Management

Patient's size and mobility may be a barrier or challenge; some treatment equipment is not designed to accommodate the size or weight of overweight person and in most cases make the patients uncomfortable (Ham, Dixon, & Brooke, 2012). In some instances, it is more challenging to palpate the spinal examination of obese persons and when delivering spinal modifications such as the difficulties of setting up a side position manipulation, the requirement to establish a 'mechanical advantage', and the replacement of less efficient techniques for more favored methods (Zinn et al., 2013). In this line, health care providers are more probable to offer better weight management when they have superior knowledge, more affirmative attitudes toward management of obesity, and can easily access resources that are adequate (Van Gerwen et al., 2009).

The World Health Organization (WHO; 2012) noted that there is lack of adequate support and funding for chiropractors to acquire education and conduct research that leads to professional development. In addition WHO (2012) report noted that there is inadequate policy input, which has seen the lack of inclusion of chiropractors from senior medical positions. This limits the efficiency of the decision-making process and the partaking of chiropractors in health policy, research, and public health. In a recent study, Gorin et al. (2014) found that the lack of training in management of obesity and disquiets about the negligible effect of weight psychotherapy contribute to the incomplete implementation of existing prevention guidelines.

Similar to adult obesity, preventing and controlling childhood obesity in primary care is a multifaceted and difficult undertaking and needs close teamwork between practitioners and parents (Adam & Vasconcelos, 2008). Sivertsen, Woolfenden, Woodhead, & Lewis (2008) conducted a study and found that GPs were aware and inspired about this challenge. In some cases, the set guidelines are not extensively observed and a number of practitioners are of the view that the managing obesity can be demanding and unrewarding (Sivertsen et al., 2008). The consciousness of the barriers to parental recognition of a child's obesity status might facilitate practitioners to better deal with childhood obesity (Jacobson & Gance-Cleveland, 2011). However, even with 100% efficiency, health care providers alone cannot deal with the encumbrance of managing childhood obesity. As such, community ownership of the obesity challenge at hand and participation is indispensable to attain a healthy future.

Often times, health care providers' obesity management protocols face obstacles beyond their control such as lack of time for patient counseling, lack of infrastructure to support weight- associated referral services, and high involvedness of handling patients were rated as the most significant barriers to offering optimum obesity management (Tanu et al., 2014). The imprecise identification and recording of predominance of the diagnosis might lead to obstacles for chiropractor's aptitude to incorporate disease management and obesity treatment into the health care plan. In their study, Epling, Morley, and Ploutz-Snyder (2011) established that the frustration with the available resources and organization of existing primary care scheme and overloading of

outpatients consultation barred chiropractors from handling obesity in the appropriate way.

One obstacle to deliberating on weight management with obese and overweight patients is the fear of upsetting patients (Sinfield et al., 2013). This is because the obese patients perceive the weight matter as a sensitive subject that ought to be approached with cautiousness, as weight is mostly embarrassing for the patient. If the patient does not raise their weight as a concern, they do not consider it is suitable to discuss the issue. These obese patients know that they are overweight and consequently will seek weight management assistance when they are prepared to make a change. When discussing with patients, there is a risk of overstating the significance of obesity for health which might offend some patients consequently discouraging them from accessing health services if they consider that each problem is being accredited to obesity (Brown et al., 2007).

Chiropractic Practice

Chiropractic practice involves a general and specific range of diagnostic approaches such as skeletal imaging, laboratory tests, orthopedic and neurological evaluations, and observational and tactile assessments (Taylor, Holt, & Murphy, 2010). Patient management involves spinal adjustment and other manual therapies, rehabilitative exercises, supportive and adjunctive measures, patient education, and counseling (Jensen et al., 2013). Chiropractic practice stresses traditional management of the neuro-musculoskeletal system without the utilization of medicines and surgery.

The viewpoint of chiropractic health care and obesity comprises the whole body and includes not only the structural but also the psychosocial, biochemical, and spiritual

and mental aspects of a patient's well-being (Smith & Carber, 2009). The conversation with a chiropractor mostly includes suitable nutrition that will lead to positive changes, undiagnosed disorders, and the effect of antisocial behaviors, and self-esteem (Erwin et al., 2013). Chiropractors can improve their care of a patient by acquainting themselves with and making suitable referrals with other professionals to acquire a wider base of knowledge that will improve their comprehension of the multifaceted responsibilities in obesity management (Erwin et al., 2013). Chiropractors can refer obese patients to different professionals including athletic trainers, orthopedists, physical therapists, psychiatrists, mental health experts, and nutritionists.

Role of Chiropractors

Chiropractors have a role to preserve and restore health by focusing their efforts on subluxation (Hawk, Schneider, Evans, & Redwood, 2012). Chiropractic practice focuses on the association between structure, which is primarily the spine, and function as it is coordinated by the nervous system and how that association impacts the preservation and restoration of health. As such, chiropractors have a role in diagnosis; facilitate neurological and biomechanical integrity through suitable chiropractic case management and health promotion. A survey by Hannon (2014) on 658 randomly selected US chiropractors revealed some perceptions in chiropractic. In the survey, 88.3% of respondents strongly agreed or agreed that the drive of maintenance care was to optimize or maintain state of health and a further 80.2% strongly agreed or agreed that the purpose of maintenance care was to establish and treat subluxation. Chiropractors in

the United States agree that they have a role of correcting subluxation, which is of value to all people (Hawk et al., 2012).

One significant reason patients turn to chiropractors, in their capacity as primary health care professionals, is for musculoskeletal (MSK) conditions (Bussieres & Stuber, 2013). Musculoskeletal conditions include consequences of injuries, osteoporosis, arthritis, and spinal pain. Erwin et al., (2013) reviewed the role of chiropractors parallel to other comparable practitioners. Is noted that chiropractors have a role in dealing with spinal disorders; however, the deployment rate of chiropractic services has been low and generally unaffected for decades. Other health care professions such as podiatry, naturopathy, and physiotherapy have effectively gained professional and public trust, upsurges in space of practice, and distinctive niche positions within conventional health care (Vine et al., 2013). Due to the exceptional burden of spine-associated problems, the formation of a 'primary spine care provider' might be a meaningful niche position to make for society's needs. Erwin et al. (2013) emphasized that chiropractors could accomplish this role but not minus first appraising and refining its approach to spinal disorders management.

The World Federation of Chiropractic (WFC) defines chiropractors as spinal health care experts in the health care system (Bussieres & Stuber, 2013). This shows that the WFC views chiropractor as Primary Spine Care Provider (PSCP). A study by Hannon (2014) established that 60% of patients acknowledge that chiropractors treat back pain but only 40% view chiropractors as experts in back pain.

Donovan et al. (2015) noted that over the past two decades, clinical research within the chiropractic occupation has been directed on the spinal and spine conditions, particularly low back pain and neck pain. The role of chiropractors is expanding to include other spheres that were traditionally not within their scope (World Health Organization, 2012). There is now a new group of chiropractors using clinical research training that are moving their effort away from customary research pursuits toward innovative and new areas. Specifically, these chiropractors' researchers are now investigating into spheres such as hip osteoarthritis brain injury, undistinguishable chest pain, work disability prevention, and the prevention of pain in adolescents and children (Donovan et al., 2015). In this line, Erwin et al. (2013) added, with the increasingly growing burden of musculoskeletal disorders, there is a necessity for chiropractors to be more integrated and involved in interdisciplinary cooperative research endeavors aimed at enhancing the care and understanding of such multifaceted disorders.

The behavior and attitudes of chiropractors taking part in obesity management cannot be viewed as separated from what takes place in the immediate community that patients reside and that in the larger society (Hawk et al., 2012). The medical practitioners, community, and society should have complimentary roles to achieve success in dealing with obesity (Awad & Waheedi, 2012). It is possible that the influential obesogenic atmosphere especially in the United States is a possible obstacle to enhancing obesity health by family physicians. Practitioners may feel that a lack of resources and programs at the community-level can undercut their individual obesity management efforts in their patients care, consequently the physicians feel discouraged.

On the contrary, an extensive availability of community resources might persuade the medical professionals to question their part in management of obesity management (Mechanick et al., 2012).

For instance, Zinn et al. (2013) noted that successful outcomes existed when collaboration between medics and community was embraced in dealing with childhood obesity. However, it is not clear in this collaboration that the physicians involved are fully committed to the process of community involvement in management of obesity or whether it increases their workload, which has negative effects on the efforts. The engagement of health care providers in the management of obesity has seen deliberation on weight commercial management programs at community level and development of referral options to obesity experts (Sinfield et al., 2013; Waring et al., 2009). It is neither proven nor coherent if this approach is effective and worth being adopted as part of the larger health care system.

Professional Responsibility of Chiropractors in Obesity Management

Chiropractors should play a significant part in weight and obesity management by persuading patients to make better choices that will help them deal with the condition (Bussieres & Stuber, 2013). The main responsibility of a chiropractor is to inspire the optimum health of their patients (Lapane et al., 2013). This shows that it is challenging and vital for chiropractors to be worthy role models for healthy lifestyles. This is because a chiropractor's own health and weight status might discredit the weight recommendation they suggest to their patients (Bussieres & Stuber, 2013). As such, given that chiropractors are health representatives and advocates, there is an understood requirement

that they should set a good example and in some instances disclose personal experiences with their patients to uphold rapport and credibility. The chiropractor's day-to-day practice should be anchored on the recommendations and guidelines availed by the government and professional organizations (Hannon, 2014).

The chiropractors in obesity management are likely to suggest a healthy lifestyle, which includes increased physical activity, and dietary advice which entails reduced quantity of total calories or refer the patient to a dietician but infrequently will provide a practical program of how to apply these endorsements (Lapane et al., 2013). A fundamental obligation for obesity management is prevention and evaluation of morbidity and risk in the persons with obesity (Dietz et al., 2015). In addition, they should facilitate the accessing of weight management support and offering long-term care for patients who have gone through specialist services. In their daily practices, where appropriate and possible, chiropractors deal with weight matters as part of their schedule to deal with risk factors (Jacobson & Gance-Cleveland, 2011). Every consultation offers a possible occasion for this, although patient receptivity also needs evaluating for maximum efficacy. This underlines the importance of chiropractors having adequate training in a number of real-world behavioral practices like motivational interviewing. The actual application of these abilities to obesity and weight management ought to be part of chiropractor's training and persistent professional development (Erwin et al., 2013).

Chiropractors as HCPs offer in-house weight management that is aimed to support patients who have not succeeded in their preliminary commercial or community

weight management methods or are not able to pay for such services (Harris & Lloyd, 2012). The professionals also support patients with weight-associated multi-morbidity, help disadvantaged groups who have weight issues, and evaluate and support for those joining bariatric pathways with lifetime follow-up in wide-ranging practice. The chiropractors also offer unending support and impending modification of gastric band after bariatric surgery and encourage family weight management to minimize childhood obesity. There is a need for constant education, training, and sharing of best practices by primary care physicians to enhance the homogeneousness of the obesity management and increase providers' self-efficacy (Van Gerwen et al., 2009). Chiropractors are likely to suggest healthy lifestyle, which includes increased physical activity and dietary advice that entails reduced quantity of total calories or refer the patient to a dietician but infrequently will provide a practical program of how to apply these endorsements.

Aptitude of Chiropractors

The World Health Organization (World Health Organization, 2005) noted that chiropractor's common international standards of training have been attained through a network of international accrediting bodies that started with the US Council on Chiropractic Education (CCE). These standards have been embraced by many countries and included as part of the WHO guidelines on elementary training and well-being in Chiropractic. The admission requirement for chiropractic training is a minimum of three years university credits in core subjects. The undergraduate program has a minimum of four academic years and must be followed by a compulsory postgraduate licensing exams or clinical training.

The chiropractors that handle obese patients have skills that include evaluating and treating low self-esteem, underlying depression, and 'emotionally fragile' patients. The professionals also develop perspectives on a number of health hazards such as smoking, diet, and alcohol besides taking a holistic outlook of health main concerns and inter-current conditions such as disability, pregnancy, cancer, diabetes, and recognizing how family issues are associated to the prevention, treatment, and management of obesity. The chiropractors also have a role to consult with other professional who have treated the patients to establish any connection of their current conditions with previous medical status.

The training of chiropractors helps them become more aware of weight issues and their effect on health on individual patients and the community (Hannon, 2014). The chiropractors also comprehend the intricacy of obesity and the prerequisite to avoid judgmental attitudes when handling patients. The professionals are expected to perform and express metabolic risk valuation to obese patients and use motivational approaches to assist patients set relevant and feasible weight loss aims and balance this with the necessities of other health challenges and prerequisites (Gupta et al., 2010).

Self-Perceptions of Chiropractors

Most chiropractors believe that their priority is to deal with neuro-musculoskeletal concerns (Van Gerwen et al., 2009). As such, chiropractors do not view weight management as a significant part of their practice consequently they do not pay attention but focus on the nutritional issues and rectification of the vertebral subluxation. A possible barrier to treating obesity is the fact that chiropractors do not view obesity as

their priority (Van Gerwen et al., 2009). Even though chiropractors are trained to professionally hold exercise and diet discussions with obese patients, the lack of support services is a barrier to effective obesity management given that it discourages and overburdens chiropractors with a view that such training as a reserve that is to be used in case the patients asks such questions (Erwin et al., 2013). Most chiropractors see obesity as a significant health subject and think that offering support to obese patients as part of their responsibility (World Health Organization, 2012). However some do not perceive that there is organizational support in place. Most of the health care providers feel that a harmonized scheme of trained staff including health educators, counselors, nurses, dedicated dietary counselors, motivational mentors, and support groups are vital in the obesity management system (Gupta et al., 2010). This shows that physicians offer insufficient weight-associated counseling to obese persons.

Chiropractors give low ratings on their aptitude to treat obesity given that they may lack self-assurance in their weight counseling abilities. As much as 44% of chiropractors in one research did not feel competent to fully treat obesity (Jay et al., 2009). In addition, some chiropractors consider weight loss to be unsuccessful and dieting cycles risky for obese patients who do not have co-morbidities. Chiropractors with these convictions see the resulting health conditions to need more attention as opposed to obesity and weight loss under the supposition that weight loss and the consequential health improvement will not be sustained in the long-term (Erwin et al., 2013). These factors combined have a significant contribution to “clinical inertia,” a scenario where the medical practitioner does not counsel for weight given that they

perceive that there is nothing they can do to deal with the problem or that accessible treatments are not effective (Harris, 2008).

Attitudes of Chiropractors in Obesity Management

The perception on the causes of obesity are imperative as of the effects they can have on beliefs about a person's responsibility and hence on attitudes toward obese patients (Puhl & Heuer, 2009). Brown et al. (2007) investigated the opinions of causes and personal responsibility. I found that HCPs believe that obesity is a personal responsibility and an issue of lifestyle choice. However, even as medical reasons are set aside, HCPs do believe in family history as a significant cause. There is a high likelihood that HCPs' beliefs vary from those of patients (McConnon et al., 2013). This is because patients might put more importance on issues that are outside individual control (Brown et al., 2007). This perception by patients can be a source and an explanation of the levels of stigma linked to obesity. The variation in perceptions also contributed to the dissimilarity in ease when discussing obesity where patients are of the view that health care professionals are obstinate when discussing obesity.

There is evidence indicating that obese patients experience stigmatizing attitudes from both public and health care providers (Creel & Tillman, 2011). The existence of stigma reduces the probability of successfully tackling obesity by diminishing of constructive patient-provider relationship, which is indispensable to obesity treatment (Puhl & Heuer, 2009). The attitude of chiropractors is influenced by patient gender consequently complicating treatment efforts (Jay et al., 2009). Stigma also affects the frequency and quality of weight loss discussions. The negative chiropractor attitudes

toward persons with obesity have the probability to drive away patients from treatment even that which is not weight associated irrespective of its efficacy (Bussieres & Stuber, 2013). Research shows that obese patients have a less likelihood than the non-obese individuals to receive precautionary screenings even those of associated co-morbidities (Malterud & Ulriksen, 2011). Given the role played by relationship between provider and patient, the presence of stigma shows that the provider's ability to motivate behavioral changes may be hindered.

Variations in beliefs influence providers' regularity and methods of evaluation implying that HCPs may be discriminating depending on how the attitude toward obesity in general and an individual obesity patient (McConnon et al., 2013). Some HCPs tend to treat obese patient depending on what they think is the cause of obesity; medical causes such as diabetes or lifestyle. Some chiropractors would prefer to handle patients they think are most likely to conform such as women, those highly cultured and educated, and the most overweight patients (Erwin et al., 2013). In addition, the health care providers who manage obesity are more probable to counsel weight loss after having more recurrent patient interaction as with those individuals who have diabetes and those who are overweight.

Gorin et al., (2014) examined the attitude and belies of chiropractors involved in obese management by exploring whether occupation, prior training in obesity management, or the practitioner's BMI (in kg/m2) affected their attitudes and beliefs. The study controlled for possibly confounding background and demographic variables. I found that educational qualifications had a very small effect on attitudes and beliefs and

those professional credentials were statistically significantly related to all but negative perceptions. Additionally age, gender, and experience are associated to personal effectiveness of obesity management (Brown et al., 2007). The attitudes of physicians comprise their general trust on the reasons and philosophy behind guidelines, the agreement with the specific clinical guidelines, and the perceptions of inflexibility of the clinical guideline, attitudes on self-efficacy, outcome expectancy, and expectancy of anticipated patient results (Epling et al., 2011).

Predominant attitudes associated to possible barriers to weight control comprise patients' lack of self-control to adhere to a specific diet, obtainability of calorific food, and allocating little or no time for physical exercise (Rurik et al., 2013). This shows that such attitudes can result in high reversion rates of obese patients, lack of patient concern in behavior change, lack of health care provider time, and lack of suitable resources both fiscal and human to treat obesity. The significance of attitude toward obese patients and its consequences implies that obesity management guidelines should start with the evaluation of patients for obesity as the initial step in addressing these barriers and attitudes (Tanu et al., 2014).

Tanu et al. (2014) explored the attitudes of health care professionals toward obese patients. In the study, only 33% of the practitioners revised the BMI of their patients at least 75% of the time while another 56% said they reviewed BMI just half the times the patient visited. Remarkably, only 12.7% discussed the BMI with their patients at least 75% of the times they met the patient while another 62% of the respondents discussed BMI less than half the times (Tanu et al., 2014). In addition, only 67% of the medical

practitioners who took part in the study were contented discussing weight issues with their obese patients. In the study, only a fifth of the respondents recorded obesity as a distinct health problem at least 75% of the times and a further 29% recorded documented obesity not more than 25% of the times. Most of the practitioners in the study spent only four to six minutes discussing therapeutic lifestyle variations with their patients whereas 22% spent less than two minutes, 13% five to 10 minutes, and 11% spent more than 10 minutes (Tanu et al., 2014). The limitation of the study is that they researchers only conducted simple descriptive statistics but did not analyze in depth the dissimilarity in attitudes in terms of level of training and years of experience (Tanu et al., 2014).

A study by Thomas et al. (2008) into the experiences of persons with obesity established that half the respondents had experienced weight stigma from health-care professionals while undergoing treatment. Remarkably, only a third of the respondents reported constructive experiences with health care professionals pointing out that they were active in their care plans and treatment. In a similar study, Ferrante et al. (2009), found that high frequency of deleterious attitudes predominated among younger chiropractors and those with lesser patient numbers. The researchers found a relationship between wider knowledge of weight-loss diets and smaller abhorrence in deliberating weight loss, greater belief in the efficiency of treatment, reduced cynicism about patient accomplishment, and less frustration (Annesi & Marti, 2011). I also found knowledge gaps and indecisive attitudes toward management of obesity among HCPs.

Summary and Conclusion

This study is influence by the health promotion model. The health promotion model presents that the health care system comprises of five main concepts that are person, environment, nursing, health, and illness. Obesity is a condition arising having more calorie intake but lesser consumption. The condition is caused by genetics, environmental, and psychological factors while economic factors have acted as intervening variables. Obesity can be prevented, treated, and managed but these efforts involve both community and health practitioners. Given the rapid increase in obesity incidences and the multifaceted effects of the condition, obesity management can best tackled by having a multidisciplinary team approach. The team should have complimentary experts who might include nutritionists, dieticians, clinical psychologists, and exercise specialists.

Chiropractors involved in obesity management have a role of persuading patients to make better choices that will help them deal with the condition and the optimum health of their patients. The chiropractors in obesity management are likely to suggest healthy lifestyle, which includes increased physical activity and dietary advice that entails reduced quantity of total calories or refer the patient to a dietician. The chiropractors have a fundamental obligation of taking part in prevention and evaluation of morbidity and risk in the persons with obesity and facilitating the accessing of weight management support and offering long-term care for patients who have gone through specialist services. The chiropractors are required to have undergone training and accreditation by specified professional and governmental organizations. Some chiropractors acting as

HCP do not view obesity or overweight as their priority is a barrier to treating obesity while some give low ratings on their aptitude to treat obesity given that they may lack self-assurance in their weight counseling abilities.

Perception on the causes of obesity are imperative as of the effects they can have on beliefs about a person's responsibility and hence on attitudes toward obese patients. HCPs believe that obesity is personal responsibility and an issue of lifestyle choice and that besides medical reasons family history as a significant cause. The attitudes of chiropractors are influenced by patient gender where women face more stigma than men. Some HCPs tend to treat obese patient depending on what they perceive as the cause of obesity; medical causes such as diabetes or lifestyle. Some chiropractors would prefer to handle patients they think are most likely to conform such as women, those highly cultured and educated, and the most overweight patients.

In obesity management, HCPs face a number of challenges. During treatment there are challenges of technical and equipment failures, limited time, and subsequently limited support from health care providers. Some treatment equipment is not designed to accommodate the size or weight of overweight person and in most cases make the patients uncomfortable. There is an obstacle to deliberating on weight management with obese and overweight patients are the fear of upsetting patients. There is lack of adequate support and funding for chiropractors to acquire education and conduct research that leads to professional development. There is inadequate policy input that has seen the lack of inclusion of chiropractors from senior medical positions. There is lack of enough time enough for patient counseling, lack of infrastructure support of weight- associated referral

services, high involvedness of handling patients, and the current perceptions of treating obese patients in their clinic and how it impacts obesity management. I evaluated the gap based on the concept of the Health Promotion model that focuses on individual characteristics and experiences.

Chapter 3: Research Method

Introduction

This purpose of this qualitative study was to explore perceptions of Mississippi chiropractors regarding obesity treatment. This included the description of these chiropractors' perceptions on treating obesity and the challenges they experience in the clinical setting. Integration of chiropractic services with conventional medicine may improve obesity care and treatment in the state of Mississippi (Gupta et al., 2010); however, the investigation of chiropractors' perceptions is important in enhancing the effectiveness of delivery of the services.

In this chapter, I discuss the research design, the role of the researcher, and the methodology used in identifying, sampling, and recruitment of participants. I also outline the instrument to for data collection and analysis. The chapter also includes issues of trustworthiness and the ethical procedures observed in the research process.

Research Design and Rationale

This study was designed to address Mississippi chiropractors' implementation of public health objectives in their practice and to obtain information on attitudes, educational background, and local resources. The research questions were used to address possible limitations that may be shaping chiropractors' beliefs and practices regarding their role in obesity prevention. The following questions guided the study:

RQ1: What are the perceptions of chiropractors in the Mississippi Delta Region regarding the obesity epidemic in the region?

RQ2: What is the perception of the Mississippi Delta Region chiropractors regarding their role as primary care practitioners in promoting and fulfilling patients' health objectives?

RQ3: What are some of the professional and clinical challenges experienced by Mississippi Delta chiropractors in extending their practices to support weight loss?

It is essential to select a research design that will enable data collection that provides adequate answers to the research problem (Hyett et al., 2014). In addition, a researcher should consider the available resources such as time and human resources as well as the feasibility of the research design. Qualitative researchers aim to discover a person's views on a specific phenomenon to capture an individual's feelings, thoughts, and interpretations on the world (Al-Busaidi, 2008; Hyett et al., 2014). I focused on opinions, describing a phenomenon as it naturally occurs without an attempt to manipulate the situation but to merely comprehend and describe it. I used a qualitative research method to gain a holistic understanding of a phenomenon as opposed to looking at a set of variables, which was appropriate because I intended to explore the perceptions of chiropractors that treat obese patients in Mississippi and give a comprehensive description of these perceptions based on the information the chiropractors provided.

The qualitative research design is flexible, as it allows for adjusting the data collection instruments as the research progresses. This made the qualitative research method appropriate for this study; I constructed the instrument to seek clarification on the perceptions of chiropractors that treat obese patients in the Mississippi Delta. The use of open-ended questions and probing questions allowed participants to respond in their

personal words as opposed to choosing from fixed responses that are limiting (Hyett et al., 2014). The use of open-ended questions evoked culturally salient meaningful responses along with explanatory views.

The research questions in qualitative research designs are not founded on suppositions about reality but are used to disclose multiple interpretations of reality (Turner, 2010). By outlining the processes that have contributed to participants' experiences and beliefs and by collecting participants' descriptions of what they think, researchers can comprehend perspectives on interventions or stimuli (Turner, 2010). This made qualitative design valuable in exploring a research phenomenon where the research participants are likely to have varied views and interpretations.

This qualitative study involved data collection through interviews where I carried out the role of the interviewer and the chiropractors took on the role of interviewees. As such, I acted as a participant-observer in the research process. The role involved choosing participants through purposive sampling. In addition, I had a role of communicating with the participants to set the appropriate time and location to conduct the interviews. In the process, I sought agreement from the participants to take part in the study. I made the agreement using the consent form that I presented to the participants for them to agree to voluntarily participate in the study. As such, I had an indispensable role to explain to the potential participants the objective of the study and handling any concerns that the participants might raise to enable them to make an informed decision when considering giving consent. I explained to the participants how their confidentiality and anonymity

would be maintained and informed them that any personally identifiable information would not be revealed.

Role of the Researcher

According to Xu and Storr (2012), the role of the qualitative researcher is to ask "why" in relation to the phenomenon. I collected data using open-ended interviews that allow me to address each research question and capture the participant's perceptions rather than my own biased perceptions derived from being a chiropractic patient. This qualitative study involved data collection by use of interviews where I carried out the role of the human instrument and used the interview questions as the study instrument. I took on the role of the participant-observer in the research process, which allowed face-to-face interviews to be conducted effectively. I obtained participants information from the Internet and Mississippi Board of Chiropractic directory. The participants received a letter (see Appendix F) and flyer (see Appendix G) requesting their participation in the study. In addition, I communicated with the participants to set the appropriate time and location to conduct the interviews. In the process, I sought agreement from the potential participants to take part in the study. I made the agreement with the participants by use of a consent form, which I presented to the participants for them to voluntarily agree to participate in the study. I explained the study objectives to potential participants and made sure participants understood that the interviews are confidential. I explained to the potential participants how I would maintain their confidentiality and anonymity, and I informed them that I would not reveal any personal identifiable information. I plan to

keep all information and materials pertaining to the study in a locked file cabinet in my home for a minimum of 5 years.

In the data collection process, I interviewed participants and recorded all responses with a digital recorder and on paper. Bias is any predisposition that inhibits impartial consideration of a question (Al-Busaidi, 2008). I had no personal or professional connection to the research or participants; therefore, remaining professional throughout the entire recruitment and data collection process avoided personal bias. I also maintained ethical consideration of the participants by safeguarding all interview data collected. In qualitative research, bias arises when a systematic error is introduced into the research process resulting in one outcome or answer over others (Turner, 2010). I minimized bias by using a consistent and systematic protocol when interviewing the participants. I also digitally recorded the participants' interview responses, maintained the data securely, and transcribed the interview responses within 48 hours of completing the interview encounter. I related with participants in a professional manner during the entire research process. I asked the participants to choose a location with the least interruptions, explained the interview format, and indicated how long the interview would take, provided contact details, and allowed participants to clear up any uncertainties about the interview. I had no interest in the study apart from that of collecting data solely for academic purposes, meaning the study had no conflict of interest. In addition, I did not offer any benefits of incentives to those who took part in the study. This was communicated to the participants before they were recruited.

The interviewer's body language, facial expressions, manner of dress, style, and tone of language can be a source of bias (Chenail, 2011). I dressed professionally during all interviews. Open-ended interview questions minimized any chance of leading the participants' responses. The research participants were allowed adequate time to respond to the questions without putting them under pressure. I recorded the responses digitally for accuracy. I asked the participants to repeat a response for clarity when needed during the interview. After completion of the interview, I made no further contact with the participant.

I communicated other ethical considerations such as payment for participation to potential participants. Participants were not compensated for participating. The chiropractors participated in the study strictly voluntarily and I communicated this to the participants during the informed consent.

Methodology

The hermeneutic phenomenology method of inquiry was chosen to examine the perceptions of chiropractors in Mississippi in an effort to understand their views on obesity management because hermeneutics phenomenology is used to find meaning in trivial aspects of life. The rationale for selecting chiropractors in the Mississippi Delta was selecting practitioners who could provide perceptions based on patients in the research area. Chiropractors outside of this radius may have perceptions that do not convey perceptions of chiropractors in the Mississippi Delta. I sought to understand this phenomenon through face-to-face interviews with the aim of obtaining insight into the chiropractors' personal perceptions regarding obese patients. I chose phenomenology

from the five methods of qualitative inquiry: narrative, phenomenology, ethnography, case study, and grounded theory. I found phenomenology to be the best approach to understanding the perceptions of Mississippi chiropractors in regard to obesity management in their clinical setting.

Participant Selection Logic

A target population is all the elements or persons that I would like to make generalizations about (Al-Busaidi, 2008). In this study, the target population included a select group of chiropractors in the Mississippi Delta who treats obese patients. Several researchers suggested purposive sampling for hermeneutic phenomenological research; therefore, purposive sampling was used to recruit chiropractors that experience the same phenomenon examined in this study (Ajjawi& Higgs, 2007). The participants were expected to be board certified chiropractors handling obese patients in a private practice or hospital setting. I excluded vulnerable chiropractors such as pregnant females from the study.

In research activities, it is not possible and sometimes not informative to collect data from all members of the target population (Chenail, 2011). This is attributed to limited resources both monetary and human, limited time, and wider geographical area. In addition, not all members of the target population might provide data that is informative and value is adding to existing studies (Wahyuni, 2012).

I established a set criterion for members of the population to meet to be selected as part of the sample (Oppong, 2013). This strategy was chosen because it was possible that not all members of the target population would provide rich information. Through

the interviews with chiropractors, I identified those who have provided health care services to obese patients with chronic illness such as diabetes, kidney disease, and cancer. In addition, I also sought chiropractors with extra training such as dietitians, exercise physiologist, psychologist, and counselors. They needed to be operating in Mississippi and in a properly registered medical facility. This aligned with the study objectives and ensured that only chiropractors that work at registered medical facilities and meet the standards are recruited. In addition, they were supposed to be members of at least one of the following; American Chiropractor Association, Mississippi Chiropractors Association, and International Chiropractor Association. Membership to an accredited chiropractic association enhances professionalism in an individual's work as well as allows chiropractors to be up-to-date with modern practices and comprehension of obesity and responsibility in obesity management. The chiropractors that participated in the study must have worked for at least 3 years in Mississippi handling obese patients, either children or adults.

The choice of sample size determines the degree to which the broad generalizations can be based on the study findings; therefore, 11 chiropractors were interviewed. In qualitative studies using interviews as a mode of data collection, a small sample size is adequate because the point of saturation may be reached quickly (Mason, 2010). The study participants received a letter of consent during the solicitation phase. Once the participants agreed to participate, a time, date, and location for the interview was established. The informed consent was discussed before the interview and each participant provided a signed copy as part of their agreement to participate. Participants

were allowed to interview in person or by phone at a time and date that was mutually agreeable to me and the participant.

Saturation is the collecting of data from new participants until the data set is thorough as shown by data redundancy or replication redundancy (Marshall, Cardon, Poddar, & Fontenot, 2013). This implies that saturation is realized when nothing new is being added to the data. Consequently, assessing suitable sample size is directly linked to the saturation (Marshall et al., 2013). Data saturation is defined as the point during data collection when no additional data that can add to the aspects of the conceptual category is available. Data saturation plays an important role in examining if a theory-based interview has achieved an adequate sample for content validity. The use of large or small samples is an ethical and scientific issue (Francis et al, 2010). According to Guest, Bunce, and Johnson (2006), data saturation is attained early in qualitative research. I emphasized that data saturation can manifest in the first six interviews and proposed a sample of up to 12 participants for qualitative research. According to Marshall et al. (2013), who conducted an examination of the qualitative interviews in information systems studies, a sample size for grounded theory qualitative studies should generally include a sample size of between 20 to 30 participants. This implies that there is no clear consensus on the actual point when data saturation is reached. In this regard, the sample size of 10 chiropractors was a maximum target for this study, as it was believed to be a number that yields thorough investigation of the research problem. Even though I sought a sample size of at least 10 participants, the total number of participants for this study was 11.

Instrumentation

I used interviews to collect data. The interview protocol (see Appendix B) contained all the interview questions that I used to gather information from the participants. Interviews have become a widely used instrument for collecting data in qualitative studies (Englander, 2012). I used the interviews to explore the perceptions of chiropractors in the Mississippi Delta regarding obesity treatment (see Turner, 2010). The interview mode of data collection offered a deeper comprehension of a research theme that would not be obtained from other methods such as questionnaires. I used interviews due to the exploratory nature of the study to address the lack of information on Mississippi chiropractors' regarding obesity treatment. I expected a variety of perceptions from the chiropractors; therefore, open-ended interview questions allowed the chiropractors to respond in a detailed manner. I did not consider group interviews because this method may hinder open free responses from participants, making one-on-one interviews more appropriate for this study.

According to the guidelines by Turner (2010), I used open-ended interview questions and developed them based on the literature examples provided; the interview question guide identified questions as they relate to the study's research questions. I used a pilot study to test the limitation and possible weaknesses of the instrument; and the number of participants were dependent upon data saturation or until 10 chiropractors were interviewed. I also followed relevant trajectories that may arise during the interview if the participants stray away from the guide. When it is appropriate and informative, I asked the participant to further elaborate on a response. I designed interview questions

(Appendix C) that were aimed in producing rich data to support the research questions based on a hermeneutic phenomenological approach (Kumar, 2012). This type of interview allowed rich data collection by allowing the unearthing or expansion of information that was significant to participants (Turner, 2010).

Pilot Study

A pilot study is an important component of a qualitative study because it provides an opportunity to test the actual study design (Turner, 2010). A pilot study was conducted to test my study design and interview questions. The pilot study included two chiropractors from the potential participant pool. The pilot study participants received a written request to participate along with an outline of the purpose of the study. The participants also received an informed consent letter outlining the role of the participant and a confidentiality statement explaining the protection of the participants' and interview data.

I also used the pilot study as an opportunity to develop a better understanding of the preparation that is needed to prepare for interviewing the study participants. The pilot study participants helped illustrate the effectiveness or weakness of my interview questions and time management. I prepared for the pilot study interviews by putting together an interview packet for each in-person interview and phone interview that included the following: a consent letter, participant demographic survey, interview protocol, and interview questions sheet. I used this data collection procedure during the pilot study as a representation of the procedure that I planned to follow during the actual study interviews. As well, the pilot study participants were representative of the study

population. I evaluated the interview process and questions for any necessary changes based on the pilot participants' interview experience and responses. The interview protocol was clear and easy to follow according to the participants. The participants followed the same protocol and answered the same interview questions with probes based on their responses to the initial questions. Based on the participants' responses and my field evaluations during the pilot study, changes to the data collection instrument were not necessary.

I used the pilot study information as part of the main study and as a measuring tool to establish any necessary refinement. The interview data were recorded digitally and I made handwritten notes as well from the points taken during the actual interview. I locked away the pilot study information and secured the pilot study data with the main study documents. At the end of the interview, I thanked the pilot study participants and informed the participant that this completed their participation in the study. I did not plan a follow-up; I obtained all information in one interview setting just as it was in the main study.

Since the pilot study participants were an exact representation of the actual study population and no changes to the instrument were required, I used the pilot participants in my main research study. According to Holloway (as cited in Van Teijlingen and Hundley, 2001), in reference to qualitative researchers, "some have therefore argued that in qualitative approaches separate pilot studies are not required" (p. 121). Also, qualitative researchers often use some or all of their pilot data in the main study (Holloway, as cited in Van Teijlingen and Hundley, 2001). As well, I consulted with my

research Chair in regards to the Pilot Study, and a thorough inquiry with university administration determined that the participants and the pilot protocol met the requirements per the Walden University standards. Hence, the pilot participants became part of the main study. In this case, including the pilot study participants within the main study were critical because excluding these participants would have resulted in a sample size too small for the main study.

Procedure for Recruitment, Participation, and Data Collection

The participants for this study consisted of 11 board certified chiropractors in the Mississippi Delta. I aimed at interviewing at least 10 chiropractors. I scheduled the interviews based on a time that is mutually acceptable for the chiropractor and me. Each interview was scheduled for at least one hour to allow ample time for setup and participant briefing. During the briefing, I discussed the informed consent form, confidentiality of information and participation in the study, and the duration for how long the data would be retained.

I developed 17 standardized questions to ask each participant to ensure that they all received the same questions and that each question provided an opportunity to gain relevant knowledge in regards to each research question (Englander, 2012). I obtained guidance for developing the questions based upon previous study examples (Ajjawi& Higgs, 2007; Sloan & Bowe, 2014). After the interviews were completed, I informed the participants that this would conclude their participation in the study. I transcribed the interviews within 48 hours of each interview and used NVivo 11 software to analyze the data.

Participants participated in a one-time interview encounter. I did not conduct a follow-up interview; therefore, I digitally recorded participants during the one-time encounter. If necessary, participants were asked to repeat a response to check the clarity of the diction or the technical difficulty. Saturation could be reached before 10 participants are interviewed; therefore, I did not anticipate a shortage of participants. In cases where I noticed participant shortage, I solicited participation from all chiropractors in the Mississippi and I conducted phone interviews instead of a face-to-face encounter. Phone interviews were conducted on speakerphone and digitally recorded like face-to-face encounters.

Data Analysis Plan

Data analysis followed these basic steps; preparation of written and recorded data, define the unit of analysis, develop categories and a coding scheme; test coding scheme on a sample of text; code all the text; assess coding consistency; drawing conclusion from the coded data; and report findings (Zhang & Wildemuth, 2012). I used the phenomenological inquiry through open-ended interviews (see Appendix C) was used to obtain the perceptions of each chiropractor participant. The phenomenological approach has been chosen to explore and understand the chiropractors' perceptions in their own words based on their practice experiences with obese patients. I considered chiropractors within 120 miles of Cleveland, Mississippi, which is considered the Mississippi Delta. I conducted an Internet search to obtain names and addresses of chiropractors within 120 miles of Cleveland, Mississippi and contacted the Mississippi Board of Chiropractors to obtain an active directory of board certified chiropractors to use as a guide when

determining which chiropractors are eligible to participate in the study. The data were collected from 11 chiropractors that manage obese patients within Mississippi to provide the necessary evidence in regards to chiropractors' perceptions of obese patients and obesity management in their practice. The chiropractors were supposed to be qualified to practice in a state-registered medical facility and be a member of the Mississippi chiropractors association. I collected the data through interviews with the chiropractor in the clinical setting. I solicited participants by mailing letters and emailing potential participants within 120 miles of Cleveland, Mississippi, who fitted the study criteria for my sample population. I conducted interviews when more than ten participants agreed to participate, and excluded data based on saturation. The interview schedule took 30-60 minutes and was recorded using a digital recorder; however, I requested an hour time block to ensure that I conducted the interview in a calm, pleasant environment.

Data protection is the technical structure and security approaches designed to ensure that data from a research is safe from unanticipated, inadvertent or malicious use (Grimes, Fleischman, & Jaeger, 2009). I considered data access, conservation, and accuracy were considered throughout the data collection process. I secured the data in a locked file cabinet within my home and I had the only access key. As well, I accomplished the data conservation and accuracy by using a digital recorder during each interview encounter. I only used the study results for academic purposes and published in journals.

I avoided being biased and minimized the influence of personal opinions but ensured that I maintained consistency and remained systematic when interviewing the

participants. I also had a responsibility of recording the participants' responses and relate to the participants in a professional manner during the entire research process. I chose a location with the least interruptions, clarified the interview format, and indicated how long the interviews would take, provided contact information and allowed participants to clear up any uncertainties about the interview. I did not have any interest in this study apart from that of collecting data solely for academic purposes. As such, no conflict of interest was presented. In addition, I did not offer any benefit or incentives to those who took part in the study. I communicated this to the participants before recruiting them.

Thematic analysis is a data analytic technique that is used to analyze broad data by discovering underlying themes and patterns (Chenail, 2011; Thomas & Harden, 2008). This technique grounded the development of themes; hence, it required more contribution and interpretation. A researcher conducting thematic analysis should move beyond counting explicit phrases or words and focus on classifying and describing both explicit and implicit concepts and ideas within the data (Chenail, 2011). In the process, codes are characteristically developed to denote the identified themes and connected to raw data as a review of the markers for later analysis. In this study, I explored the perception of a research phenomenon as opposed to reconciling the conflicting definitions of the problem. I adopted a positive approach where I derived interpretations directly from data collection in a systematic and transparent manner. I used NVivo version 11 in the data analysis process. I used NVivo version 11 to organize and analyze interview data in order to improve the rigidity of the analysis procedure.

Each interview question (Appendix C) was related to the research questions.

RQ1: What are the perceptions of chiropractors in the Mississippi Delta region regarding the obesity epidemic in the region? Interview questions number one through number four pointed to this research question.

RQ2: What are the perceptions of the Mississippi Delta region chiropractors regarding their role as primary care practitioners in promoting and fulfilling patients' health objectives? Interview questions number five through number 11 pointed to this research question.

RQ3: What are some of the professional and clinical challenges experienced by Mississippi Delta chiropractors in extending their practices to support weight loss? Interview questions number 12 through number 17 pointed to this research question.

Before the data analysis, I read and reread the interview data (Alhojailan, 2012). I used memoing to gain an intimate understanding of the data gathered. The first step in data analysis was to code the data collected from the interviews. I did this by reducing the data and dissecting the texts into meaningful and manageable text parts, with the use of a coding framework. I based the coding framework on concepts found in the research questions, outstanding issues that stand out from the data or both.

The second step involved identifying themes once all the data had been coded. I established themes by grouping related codes and extracting the significant and common themes from the coded segments. In addition, I extracted underlying patterns and structures to form themes. The themes were refined to be specific enough to be distinct and non-repetitive, and to be broad enough to summarize a set of concepts contained in various text segments. This reduced the data to a more manageable set of important

themes that concisely review the text. As the themes emerged, I molded them to accommodate new data together with the old one.

The third step in data analysis was to construct the networks. The themes identified offer a basis for the thematic networks. Assembling the themes into similar and coherent clusters did this. I made choices about how to cluster the themes based on the content when suitable and on theoretical grounds. Each cluster resulted in a discrete global theme, supported by distinct organizing and rudimentary themes.

In the fourth phase, I summarized the thematic network, which involved presenting a summary of the main theme and the underlying patterns characterizing it. I did this with an objective of recapitulating the foremost themes that began to materialize in the depiction of the network and to make obvious the patterns arising from the exploration. This helped make the interpretation more gripping. The last step involved interpretation. This step entailed bringing together the suppositions in the extractions of all the networks and these suppositions and the pertinent theory, to reconsider the significant themes, structures, concepts, and patterns that I derived from the data. The objective of this phase was to revisit the research questions, and the theoretical concepts are supporting them and address these with opinions founded on the patterns that arose in the exploration of the texts, through the use of NVivo version 11.

Issues of Trustworthiness

Zhang and Wildemuth (2012) recommended ensuring these four criteria are met to show trustworthiness of the data and they are as follows; credibility, transferability, dependability, and conformability. Establishing trustworthiness necessitates determining

the degree to which conclusions meritoriously characterize empirical realism and evaluating whether construct developed by researchers measure or represent the groupings on human experience that transpire (Loh, 2013). I ensured as such, credibility, conformability, dependability, and transferability. I used triangulation to establish credibility. Zhang and Wildemuth (2012) indicated several strategies for validating qualitative research data for more credibility. During the interview process, I asked participants to repeat any questions that were not clear or may have possibly been recorded wrong as a result of human error. This method of inquiry ensured the interview transcript was valid and accurately represented the perceptions of the participants. I ensured transferability by recording detailed descriptions of the data recorded.

External validity is the extent to which conclusions of one study are applicable to other situation. The main objective is to determine that the findings of the study was applicable in a broader population and there is no over generalization of the study population (Trochim, 2003). To ensure this, I used thick description of the research phenomenon. I provided information on the target population, sampling, and sample size, data collection instrument and procedures, location of study, period within which the research was conducted and any limitations faced in the research process.

Dependability is achieved if a study is repeated in similar context, with similar methods and approach, and with the same research participants, I obtained the same findings (Zhang & Wildemuth, 2009). To address dependability, I described the research process in detail, which provided other researchers the necessary information to duplicate the study. I used an audit trail to enable other researchers and readers the ability to trace

the course of the study step-by-step via the choice made and procedures described. The assumption of confirmability is based on the qualitative researcher's objectivity (Carcary, 2009). To achieve confirmability, I certified the findings are perceptions of the participating chiropractors rather than the preferences by recording their responses verbatim. In the data analysis and reporting, I naturally and holistically reported the views of the research participants.

Ethical Procedures

The study participants were chiropractors in and approximately 120 miles from Cleveland, MS, which ensured a population of participants within the Mississippi Delta. I obtained permission to recruit participants and conduct research from the Walden University Institution Review Board (IRB) 05-19-16-0168587; however, additional IRB approval was not considered because I recruited participants from chiropractors working in private practices. I informed the participants of the procedures in place in order to maintain confidentiality of their identity and statements taken during the interview process so they can make a rational decision whether to participate (Ajjawi & Higgs, 2007). An informed consent letter was provided to let the participants know about the research and what role they were expected to play. The letter had enough details to ensure that the participants were well informed about the exact nature of the project and any potential risks. I also highlighted clearly how taking part would make a contribution to the research objectives. I stored the information in a secure file cabinet within my home and I had the only access to the data location. The data that I did not use in the study was permanently destroyed after the dissertation has been published. The data remained

locked to protect the confidentiality of each interview participant and each interview sheet had an assigned number instead of the participants' personal identifiable information. I placed the code sheet containing the participant's number with personal identifiable information in a separate document that remained locked at all times and was destroyed after five years with the interview files. The data were locked and secured until at least five years after the completion of the dissertation. Since the data were stored in a locked file cabinet at my home address, I did not consider additional security measures. The data were not stored or analyzed in my work environment or the work environment of the participating chiropractors.

I informed the participants that agreement to take part in the study is purely voluntary and that they are free to withdraw from the study at any time. In case of withdrawal, there were no penalties or consequences that the participants faced. I did not require participants who chose not to participate in the study to provide any reason of their resolutions.

Summary

I clearly informed the participants concerning who would access the collected data and the level of confidentiality in reference to any information arising from the study. I treated the information from the study with the utmost confidentiality, and no personally identifiable information was shared. To ensure anonymity, I used computer generated pseudonyms to refer to the study participants. I protected the data to maintain participants' anonymity and to maintain the integrity of the data that were reported in the Chapter 4 results.

Chapter 4: Results

Introduction

The purpose of this phenomenological study was to explore perceptions of Mississippi chiropractors regarding obesity treatment. This chapter includes an analysis of the results from 11 interviews with chiropractors in the Mississippi Delta. I used open-ended interview questions to get data on various aspects such as knowledge, skills, and barriers that may influence the chiropractors' perceptions on obesity management. I developed open-ended questions to answer the three research questions that framed this study. Chiropractors play an important role in health care; however, there is little research about their perceptions regarding obesity and whether they offer services like primary care providers since they attend to the same patients as medical providers. Obesity has reached an epidemic proportion nationally. I explored chiropractors' perceptions regarding obesity and obesity management within their practice. The study focused on addressing the primary research questions for the study. I used the following central research questions for the study:

RQ1: What are the perceptions of chiropractors in the Mississippi Delta region regarding the obesity epidemic in the region? Interview questions number one through number four pointed to this research question.

RQ2: What are the perceptions of the Mississippi Delta region chiropractors regarding their role as primary care practitioners in promoting and fulfilling patients' health objectives? Interview questions number five through number 11 pointed to this research question.

RQ3: What are some of the professional and clinical challenges experienced by Mississippi Delta chiropractors in extending their practices to support weight loss?

In this chapter, I offer a synopsis of key themes from the results of the interviews. I also present information on the pilot study, research setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and summary.

Pilot Study

The pilot study began after receiving IRB approval. According to the Center for Evaluation and Research (2011), the pilot study ensures that all research participants receive the same interview protocol, all questions are clear, and the instrument does not require changes. I conducted a pilot study using two chiropractors in the Mississippi Delta. I scheduled the interviews on the phone and in person separately at a time convenient for them and they only fulfilled the required one-time encounter. Both participants completed the informed consent form and gave permission to allow a digital recorder during the interview session. After successfully recruiting, the two participants received an informed consent form to familiarize them with the study and obtain consent to participate in a one-time private interview session. I used the pilot study to test the reliability and validity of the interview questionnaire. Before conducting the pilot study interview with participants, I consulted with a chiropractic expert and department chair in the school of chiropractic at a university to ensure the clarity of the interview questions and proper alignment with the research questions. The expert review involved assessing the interview questions to see if they were sufficient to answer the central research questions as well as gain information during the participant's interview. The expert

received a copy of the interview protocol and interview questions. There were no changes to the instrument; therefore, I used the pilot study participants in the actual study. After conducting the pilot study interviews, no changes were necessary; therefore, I did not contact the IRB staff before beginning the real study.

Research Setting

The research study took place in the Mississippi Delta, where I could feasibly conduct interviews on a flex schedule in a private setting that was mutually complementary for the chiropractors, and I contacted the chiropractors by phone, e-mail, U.S. mail, and flyers during the recruiting process. All the participants owned a private practice; therefore, I found no need to get permission from an organization or facility director. The chiropractors participated as a result of their own consent. They did not express any need to get permission to take part in the study. I created interview packets for each participant and discussed the interview protocol before the actual interview commenced. All documents were retained and locked away in my home file cabinet. I discussed this with the participants and outlined the protocol in their informed consent form.

Demographics

The study consisted of a total of 11 chiropractors in and around the Mississippi Delta. I used purposive sampling to select participants and as a strategy to stimulate diversity among the study population. Potential participants received the demographic criterions during the recruitment process and during the informed consent phase. During the informed consent process, each participant asked to remain anonymous; therefore, I

assigned each a pseudonym. I randomly generated the pseudonym through an online pseudonym name generator based on gender. The participants included board certified chiropractors working in the Mississippi Delta. I identified additional criteria for the study in a brief demographic survey provided to each participant. Table 1 depicts the demographics of the participants, including additional certifications, gender, practiced outside and age.

Table 1

Demographics Table

Participants	Gender	Age	Years Practiced	Previously Practiced Outside MS – Yes/No -Place	Additional Certification – Yes/No – Type
Damara	M	41-60	5+	No	Yes–Nutrition Counseling/Weig ht Loss
Boony	F	26-40	5+	No	No
Claretta	F	41-60	5+	Yes-Georgia	No
Gordan	M	26-40	4	No	Yes-BS Health & Wellness
Almire	M	41-60	5+(31)	Yes-Florida	Yes-Whiplash
Benny	M	41-60	5+(24)	Yes-Alabama	Yes-Level 1 Precision Nutrition
Ulla	F	26-40	5+	No	No
Obediah	M	26-40	5+(9)	No	No
Gib	M	41-60	5+(16)	Yes-Atlanta	No
Berti	M	26-40	5+(13)	Yes-Atlanta	Yes-Physiotherapeutic Modalities
Crichton	M	60+	5+(40)	Yes-Indiana	Yes-Bioenergetics Synchronization

I chose the study participants from the following counties: Bolivar, Washington, Desoto, Leflore, and Sunflower. Three participants were from outside of the Mississippi Delta due to the small sample population. These participants were from Hinds County and Madison County, which are counties that closely neighbor the Mississippi Delta.

Figure 2. Map illustrating the Mississippi Delta counties where the participants reside and practice.

Data Collection

Data collection began with the pilot test and then the research study followed. The pilot test established the validity of the interview instrument. After validating the interview instrument, I conducted a full study through the data collection process outlined in the methods section of this dissertation document. I accomplished data collection by

interviewing 11 chiropractors practicing in the Mississippi Delta. The interviews averaged about 30-40 minutes in length. Data were collected over 9 months ranging from June 02, 2016 to March 06, 2017. Digital recording equipment was used to record each interview independently, as I gave each participant the same protocol and set of interview questions. I also recorded observances on the interview field sheet during the interview.

Both phone interviews and in-person interviews occurred in a private setting using the same interview protocol. The data collection occurred as outlined in the IRB application without deviations. I traveled to the chiropractors' office for the in-person interview and observed a high traffic environment in a small setting. All the chiropractic facilities were small compared to traditional medical practices.

Data Analysis

Data collection consisted of digitally recording of the interviews from the 11 chiropractors participating in the study, and I uploaded the digital recordings to a free online web application called oTranscribe. I reviewed the transcribed interviews several times during the transcription process. Data were then organized by research questions to hand code before entering the data into NVivo 11. I entered the transcribed data into the NVivo 11 Data Coding software for further analysis and coding. I organized the interview transcripts and copied directly into NVivo 11. I set up NVivo 11 to auto code the interview data. The query generated several important themes based on word frequency. During the interviews, I found no discrepant cases because all chiropractors seemed to hold similar opinions.

Evidence of Trustworthiness

Digitally recording the interviews and using them to transcribe the participants' responses accurately established credibility of the study. Because the chiropractors participated with the understanding that they would only need a one-time encounter, member checking of the transcript was not part of the process. However, I established clarity during the interview when necessary. I accomplished transferability in the study by providing a description of the research method, data collection procedures, and results from the data collected. I used phenomenology to explain the chiropractors' perceptions on obesity management within their practice and the importance of the study. I accomplished dependability in the study by using a chiropractic expert to review the interview questions and protocol to minimize bias during the data collection process. I accomplished confirmability in the study through triangulation and detail description of the research method to cut bias.

Presentation of Emerging Themes

The themes emerged from the manual transcripts acquired during the participants' interview session. The findings yielded 15 core themes from the interview questions. The core themes are identified in Table 2.

Table 2

A Core Themes

CORE THEMES (15)	*n*	Frequency of Response
Additional training	11	18
Practice barriers	11	37
Causes for obesity	11	30
Chiropractor's role	11	67

(table continues)

CORE THEMES (15)	*n*	Frequency of Response
Effects of obesity	11	29
Government initiatives	11	23
Obesity guidelines	11	27
Lack of knowledge about Healthy People 2020	11	42
Obesity trend	10	16
Multidiscipline team	11	37
Patient representation	11	21
Prevention programs	11	40
Reasons for treatment	9	12
Referrals	10	22
Wellness campaign	11	27

Note. I coded the core themes above into the listed categories during data collection. These themes emerged from the data analysis process.

Research Question 1

RQ1: What are the perceptions of chiropractors in the Mississippi Delta Region regarding the obesity epidemic in the region? The question addressed a broad perception of chiropractors in the Mississippi Delta with regard to obesity management. Several themes emerged during the analysis of the interview questions responses. The themes that emerged are as follows: (a) obesity trend, (b) patient representation, (c) government initiatives, and (d) causes for obesity. RQ1 themes correspond with interview questions (IQ) IQ1, IQ2, IQ3, and IQ4.

Theme 1: Obesity trend. All 11 participants responded to the question presented in the interview protocol, "Are you aware of the general obesity trend in the Mississippi Delta?" All 11 participants stated they are aware of the obesity trend in the region.

Boony said, "I am aware of the obesity problem. I have quite a few obese patients." Almire said, "I am incredibly aware of the obesity problem. It goes together with diabetes and I call it 'diabesity' because sometimes it's the same disease."

Theme 2: Patients' representation. All 11 participants responded to the question presented in the interview protocol, "Do your patients represent the general obesity trend in the region?"

Benny said, "I would say yes, I have obese patients in some form or fashion. Not necessarily morbidly obese but yes, overall yes. I see 7 out of 10 are overweight and probably 2 out of 10 are morbidly obese." Ulla said, "Well, I really think it (obesity) is pretty evenly distributed among black and white. There are as many males as females too, so it's an epidemic."

Theme 3: Government initiatives. All 11 participants responded to the question presented in the interview protocol, "Are you familiar with any regional or local government initiatives to promote healthy weight among citizens of the Mississippi Delta?" Ulla said, "I know of local churches with healthy community programs, I think they have some government support as well because they write grants and things like this to help create healthy communities." Crichton said,

> Well, we have our own initiative that we are trying to implement. Chiropractic is a natural profession that encompasses fresh air, sunshine, diet, rest, and exercise, now that's the basic components of chiropractic dating back to the origins of chiropractic. Fresh air, sunshine, diet, rest, and exercise – It is a philosophy, a principle based upon all things that are natural.

Theme 4: Causes of obesity. All 11 participants responded to the question presented in the interview protocol, "What in your opinion are some of the causes for obesity prevalence in the Mississippi Delta?" Damara said, "First, I would first say

poverty, and second I would say lifestyle." Claretta said, "Lack of understanding and education on what is needed to be healthy." Benny mentioned that "Ignorance about what's good and not, lack of access to good quality food and the lack of education about nutrition as a whole." Crichton added, "It is the lack of knowledge in nutrition. So we try to empower them with some simple principles."

Research Questions 2

RQ2: What is the perception of the Mississippi Delta Region chiropractors regarding their role as practitioners in promoting and fulfilling patients' health objectives? RQ2 addressed the role of chiropractors in the Delta promoting and fulfilling patient health objectives. The themes that emerged from this question are as follows: obesity guidelines, effects of obesity, Healthy People 2020, role of chiropractors, reasons for treatment, and referrals. RQ2 themes correspond to the following interview questions: IQ 5, IQ6, IQ7, IQ8, IQ9, IQ10, and IQ11.

Theme 5: Obesity guidelines. All 11 participants responded to the question presented in the interview protocol, "What are your guidelines for categorizing a patient as obese or overweight?" Damara and Crichton both said, "Medically, if their BMI is over 30." Gordan said, "For us, it is more of a look at body composition. When you look at body composition, the BMI is all over the place, so you have to consider muscle mass." Crichton said,

> I do BMI but we don't heavily rely on BMI because I can take a patient's height, weight, and blood pressure. Based on the BMI chart, they say I am overweight so

I don't rely on BMI because I know I'm not overweight There is something skewed with the calculation of the BMI, in my opinion.

Theme 6: Effects of obesity. All 11 participants responded to the question presented in the interview protocol, "What are the effects of obesity on an otherwise healthy person?" Claretta said, "In my opinion, the body is always ever adapting. Yes, see the weight is the obvious, so called obvious thing when we consider weight. So, people get lazy, and they try to automatically blame weight for their problems." Gordan said, "If I have a patient that is extremely overweight, I notice they have a lot of breakdown in their feet, ankles, and discs." Almire said, "Well, you have to remember, if they are overweight or obese there is a chronic illness." Obediah added, "They definitely have a lot of neck pain and low back pain most times I see that presentation." Crichton said, "Yes, that will definitely affect the physiology, and their ability to move and function. Being overweight or obese is always going to lead you to a chance of all these other conditions."

Themes 7: Healthy people 2020. All 11 participants responded to the question presented in the interview protocol, "Are you familiar with the long-term health goals outlined in Healthy People 2020?" All participants with the exception of Ulla had not heard about Healthy People 2020. Ulla said, "That is a great question. I would say this is something I did on my own. I have not noticed it being communicated through the Chiropractic Association at all."

Theme 8: Chiropractor's role. All 11 participants responded to the question presented in the interview protocol, "Do you believe that chiropractors in general can

play a role in addressing the obesity problem in the Mississippi Delta?" The participants generally felt that Chiropractors are better positioned to significantly address the obesity problem in the region.

According to Claretta,

> Well, chiropractors play a role in helping to restore proper function to the body by balancing the nervous system and stimulating the nervous system to be able to handle stressors. And so those stressors can be emotional, physical, chemical, and they can also be an issue. So when that happens the person is able to get more balanced in all those areas we just mentioned and we can also guide them on healthy living as we're helping to balance their body. We can also give them better tools to help guide them in the direction of making better lifestyle choices. This could be in the form of nutritional supplements, doing what we call rehabs exercises. In my opinion, the patient doesn't necessarily have to go to a gym to workout. Simple things like changing their diet. So, yes, we can be very helpful in addressing obesity in that kind of way.

Theme 9: Reasons for treatment. All 11 participants responded to the question presented in the interview protocol, "Do you get patients that come to your specifically for weight loss or weight gain prevention?" In general the respondents stated that chiropractors do not get patients who come specifically for weight loss; however, most of them reiterated that they include nutritional counselors as an aid for weight loss in their treatment protocol.

Gib said,

> Well, normally, it's just… for the most part, it's for chiropractic. Now again, I do free screenings in my program – office protocol. I do schools; I do churches; I do a little bit of everything as far as community. So, a lot of the screenings I do within the community, those questions get asked as well. So the general public has access to me as far as those things are concerned. Not necessarily referral, but just general public screenings, so we can address some of those issues as well. So, it's not necessarily… they can do a referral thing, but if a patient comes in and says, "I want to lose weight but I also have this issue", we just incorporate it altogether.

I also found it interesting to note that some chiropractors have a separate weight loss component within their practice. Damara said, "I do some weight loss of course, so I have certain people come to me specifically for weight loss."

Benny said,

> Yes, we have two parts of our office. We have the chiropractic side and then we have the gym side of it. The gym is part of our office and when our patients come to see us with low back problems once they are not acute any longer we strive to get them on the gym side.

Theme 10: referrals. All 11 participants responded to the question presented in the interview protocol, "Do you get referrals from traditional medical practices to support patients' weight management efforts?" Overall, the participating chiropractors echoed the same message indicating that they generally don't receive referrals from traditional

medical practice in regards to weight loss or weight management. One reason mentioned was that many doctors have their own weight loss programs.

Benny said,

> Very, very occasionally but many of the doctors have their own weight loss system and they have affiliations typically with one of the hospitals or they are hired by the hospitals and are told not to refer outside of their facility so they will refer their patients to their affiliate hospital.

Crichton also spoke about the lack of referrals due to a lack of understanding of the chiropractic profession. Crichton said, "No, we don't. They don't understand the concept; how can a chiropractor help me. You know all he does is the bone – pop my back, pop my neck. You know, it's a mentality."

Research Question 3

Research question 3 was: What are some of the professional and clinical challenges experienced by Mississippi Delta chiropractors in extending their practices to support weight loss? Research question 3 examined the practice operations and potential barriers experienced by chiropractors in the Mississippi Delta. Several themes emerged and they are as follows: additional training, practice barriers, wellness campaigns, prevention program, and multi-discipline team. Research question three themes correspond with the following interview questions: IQ11, IQ12, IQ13, IQ14, IQ15, IQ16, and IQ17.

Theme 11: Additional training. All 11 participants responded to the question presented in the interview protocol, "Does it require additional training for a licensed

chiropractor in the Mississippi Delta to offer weight management services?" They all indicated that chiropractors are equipped through their education to address weight loss and weight management without additional certification requirements. Damara said, "I hate to say this but we know more than medical doctors when it comes down to weight gain because we take more courses in nutrition." Gordan said, "Many chiropractors offer some sort of nutritional counseling to patients but you can't be a master of everything." Benny echoed the same stating, "There is really no additional training requirement because we are trained about nutrition in chiropractic school."

In addition, all 11 participants responded to the question presented in the interview protocol, "Are weight management services within the scope of practice for chiropractors in the Mississippi Delta?" The question also connects with the theme addressing additional training requirements. All participants indicated that weight management was in their scope of practice. Gordan said, "Yes, I would have to say so because we can address nutrition and lifestyle changes."

Theme 12: Practice barriers. All 11 participants responded to the question in the interview protocol, "What are the barriers (or steps required) in setting up a typical Chiropractic facility to extend weight management programs to its patients?" Some common barriers mentioned were time and resources. The ability to offer the services exist because of education but the participants echoed challenges relating to space within the practice, time to offer the services, and having enough money to advertise the services and staff the clinic to accommodate the services. Boony and Claretta indicated that economics and having enough cash flow to advertise to people seeking weight loss is a

potential barrier. Gordan said, “Time and resources are barriers because most chiropractors have a small staff. Obediah said, “Yes, if we advertise the fountain of youth – weight loss- and people start coming in here in groves, we would definitely have to expand.” Crichton added, “If you’re going to do weight control, that’s an all-day affair and regular chiropractic services may suffer.”

Theme 13: Wellness campaign. All participants responded to the question in the interview protocol, “Do you conduct wellness campaigns to raise familiarity among the general public about the benefits of Chiropractic care on overall health & wellness?” The data collected demonstrated that patient education and health campaigns appear to be an important endeavor for chiropractors in the Mississippi Delta. Gordan said, “Yes, we try to do that. We try to do a monthly talk. We try to base it on the specific need to group we’re speaking to for that month.”

Benny said,

> I have been practicing for quite a bit of time and I have two associates with me and I’m trying to make my life a little bit more simpler these days, but to answer your question, this January we are going to start a series of once a month lectures about various topics – weight loss, back pain, neck pain, etc.

Berti added, “We love to do that and we refer to them as spinal screenings and what we do is we provide health surveys and pass out pamphlets.”

Theme 14: Prevention programs. All participants responded to the question in the interview protocol, “Does your campaign specifically highlight a weight loss or weight prevention program?” Overall, chiropractors in the Mississippi Delta seem to

focus on including health topics in their general chiropractic discussions at health fairs and other speaking forums that they attend. Obediah and Gib stated, "No, we try to make them aware of our overall services." Berti said, "Overall and of course, any specific questions if anybody would have. Sometimes it does go to weight management; sometimes it's huge part of the problem." Crichton said, "No, I talk about general chiropractic which addresses everything."

Theme 15: Multidiscipline team. All 11 participants responded to the question in the interview protocol, "In your opinion, would it be feasible for Chiropractors in the Mississippi Delta to initiate an outreach into key hospitals and traditional medical providers and develop collaborative weight management programs?" Damara said,

> A lot of the people that come into our office are overweight and they have pain in their hips, knees, and back. So, we're already treating the same patients, it would be beneficial to the patients if we did collaborate more.

Almire said,

> Well, you know I mean the medical profession could obviously send people who have body fat issues to us and yes we could probably be a lot more effective at it than a medical provider. And mostly it's what's between your ears - your belief system. It's not occurring with me, not that much. It should be but like I said, I hate to go back to the medical providers but when they stick to what they do - - crisis and urgent care – they're very, very good. But unlike I said it should happen that way but most of the medical profession – I keep generalizing here – it doesn't seem to understand what it is that we do – that we're health care providers. They

> don't understand what health care is. The medical profession does not as a general rule understand health care or chiropractic.
>
> Benny said,
>
> I think there would have to be a great degree of trust from the medical field to be able to collaborate with a chiropractor – a non-medical practitioner. Most people fall within the category where they need diet, exercise, back treatments, neck treatments, lifestyle changes, and nobody is better than the chiropractor to provide these type services in one place.

Summary

After reviewing the interview questions and transcripts, the chiropractors' perceptions began to become clear along with a greater awareness of the profession. During the coding process, 15 core themes emerged to support the three research questions. After reviewing each interview transcript, the following observations and understanding summarize the results.

Professionally, the chiropractors indicated that they could handle obese patients and provide some services that are only provided by medical doctors. They have the education and knowledge necessary to offer valuable services in treating obesity. They could probably lead a panel discussion and help develop grass root programs within their communities.

There are some legislative challenges or insurance challenges when it comes to billing and reimbursement for their time if they try to provide weight management services. If they do offer services, they would be cash only service. Also, their practices

operate with a small staff and because they are a private practice, time would be a major barrier if they were to offer full-scale weight management programs. For this reason, many of them opt to have some time of nutritional counseling built into the treatment protocol to support their chiropractic care.

They all welcome the idea of some outreach program or collaboration with a medical doctor. A very important gap exists in the fact that there is a very little understanding between the two professions: medical doctors and doctors of chiropractic. Moving forward, numerous benefits can be reaped from some panel discussions, including both professions so they can begin to truly understand each other and ways to merge the professions for better patient care as they do indeed complement each other. All chiropractors agree that optimal patient care should be the goal for both medical and non-medical practitioners. They welcome the idea of being a part of a multi-discipline team and forming a consortium to maximize the potential.

Chapter 5 includes a connection between the 15 core themes that emerged from data collection and analysis for the purpose of this study. Chapter 5 also includes study findings, limitations, implications for social changes, and recommendations for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this qualitative study was to explore perceptions of Mississippi chiropractors regarding obesity treatment to provide an understanding of their views and challenges they face in treating obesity. A sample of 11 Mississippi chiropractors participated in this study. I analyzed data, which was presented in Chapter 4, for interpretation of the participants' reflections and themes. Chapter 5 contains a discussion of the study findings, including themes about the research question, the relationship of themes to existing literature, recommendations for leaders, and future research, followed by the study's limitations. The chapter concludes with a summary and conclusion.

Interpretations of the Findings

The findings from this study may help improve obesity management in the Mississippi Delta and possibly across the nation. The research findings provide valuable perceptions of chiropractors regarding obesity management and the chiropractic profession. In Chapter 2, I introduced the lack of literature on the chiropractic profession, especially on how public health initiatives are addressed in the chiropractic office (Leach et al., 2011). Health practices in the 21st century include integrative health approaches toward treating obesity (Zinn et al., 2013). Obesity is a health issue in the United States, and understanding the chiropractors' perceptions of their role with obesity management may provide insight for better treatment protocols. According to Scharff (2009), obesity can be linked to situational influences such as excessive consumption of food immediately available despite the adverse consequences. The themes that emerged from

this research study are consistent with findings from the literature presented in Chapter 2. The themes include a) additional training, b) barriers required, c) causes for obesity, d) chiropractor's role, e) effects of obesity, f) government initiatives, g) guidelines, h) health goals, i) obesity trend, j) outreach programs, k) patient representation, l) program & prevention, m) reasons for treatment, n) referrals, and o) wellness campaign. The results from this study add to the existing body of knowledge for researchers to obtain a better understanding of Mississippi chiropractors regarding obesity treatment. In the next section, I address the emerging themes for the study.

The health promotion model was the conceptual framework for this study. Pender developed the theory in 1982 and revised it in 1996 (Pender, 2011). As described in Chapter 2, the theory provides a framework for evaluation in health care to explore the possible environmental influences that shape people's beliefs and health outcomes.

Research Question 1

Obesity trend. According to Flegal et al. (2016), obesity increased significantly among adult men and women in the United States. The phrase "diabesity" was coined to combine obesity and diabetes as parallel factors in the same disease category. Several other participants noted the trend of people in the region as being obese as a result of being overweight. Food consumption and lifestyle represent the southern dynamics of culture, which further determines the habits of the residents as acceptable and standard practice.

Patient representation. The data from the participants' responses were used to identify the commonalities of the study. Participants noted the practice of educating

people to understand their needs and goals for better nutritional habits. The comparison of responses revealed that they understand the need for education; nutrition counseling can offer patients the proper tools needed to develop better action plans for a healthy lifestyle. One participant noted, "Chiropractors understand that nutrition and wellness should be developed together, as long as people know their body and what works best for their functionality." Educating clients is a matter of explaining the options in clear and concise language, and the chiropractors are happy to institute changes. In support of a similar concept, Zinn et al. (2013) stated that the collaboration between medical practitioners and the community yielded greater success in dealing with childhood obesity. Penney et al. (2015) also stated that systems need to be developed to foster communication between the providers as patients and providers have expressed a need for better means of communication.

Government initiatives. Several participants mentioned that government initiatives are important. These participants referenced plans to carry out their initiatives through government grant funding. Natural treatment has been the basis of chiropractic treatment since its inception through the elements of fresh air, sunshine, diet, rest, and exercise. One participant noted, "The philosophy and principles are based on all things that are natural." Whether by local agencies, or government-funded entities, the initiatives will support healthier communities. Common patterns in the data aligned with the perspective of having the body heal itself through a natural process. However, the participants mentioned that the insurance companies currently do not accept billing for nutritional counseling or services and their patients would have to pay cash to receive

these services in their offices. Many of them see government initiatives as a possible means to offer weight management services to their patients.

Causes for obesity. Several participants echoed the same or similar reasons for the cause of obesity in the region. One participant noted the lack of access to the proper education about eating healthy. Other participants noted the cultural habits that develop and are crucial to understanding dietary management. According to Erwin et al. (2013), understanding the practitioner's perception of his or her ability could indicate the potential held by chiropractors and their ability to take up important tasks involving obesity treatment.

Lifestyle choices, such as the methods of food preparation, factor into the causes of obesity as well. Participants recognized that the Delta diet centers on the southern cuisine, which consist mostly of fried foods prepared by the fast food industry. Convenience and cost align with how people shop for food and have developed poor eating habits. The participants indicated that their perceptions regarding obesity management stem from their experiences in practice. These findings concur with the findings of Jensen et al. (2013) that biological factors include genetics and metabolism, behavioral factors include physical activity, and environmental factors include external aspects such as food prices.

Participants expressed the importance of considering chiropractors as change agents that can redirect the outcome of obesity-related illnesses. Participant 10 echoed the opinion among all participants when he stated, "I would first say poverty. Second I would say lifestyle. Particularly there aren't any healthy eating-places around. Another thing is

the fact that it's so prevalent that it doesn't seem like a big deal because the person beside you is just as big or bigger. I would say they would be the most factors that would contribute to it." These findings also concur with Jensen et al. (2013), who explained that behavioral factors and environmental factors determine the risk of obesity.

Research Question 2

Obesity guidelines. Several participants mentioned the factors that contribute to how they determine if their patients fit into an obese category. One participant said, "Weighing every patient when they come in initially, and then we categorize them by their BMI." Some participants admitted to not using a scale for weight alone as the primary factor for categorizing obese patients but rather the standard of being over 200 pounds. According to Chapman et al. (2015), the method of learning anatomy is synonymous in the aspects of teaching for chiropractors. Based on the national guidelines on whether people are considered to be obese, there are numerical guides by weight classification to determine the standards for obesity. Several participants indicated that they use the determination of body composition as being the factor, but BMI alone cannot be the deciding factor, as people are diverse in stature and composition. Muscle mass is one method of consideration.

Effects of obesity. Several participants mentioned one of the effects of obesity as limiting the amount and movements that a patient can conduct in terms functionality and physiology. Participants noted the effects of obesity most commonly lead to other chronic illnesses in the body. Chronic illnesses need a continued plan of medication and treatments until the proper means for control are implemented. Diabetes, hypertension,

and heart disease are some of the main chronic illnesses that contributed to being overweight as effects of obesity. One participant noted that some of the common complaints are neck pain, joint pain, leg pain, and low back pain from having obesity problems. Weight is a significant factor in controlling obesity. According to Stillman et al. (2017), the two primary behaviors most often targeted for weight loss are caloric intake and physical activity. Weight management and whether the patients understand the seriousness of their lifestyle commonly relate the effects of obesity. There are clear associations between obesity, brain, and cognitive measures such as the result of weight gain or the cause of behaviors that later lead to weight gain.

Lack of knowledge about Healthy People 2020. According to Fikar, Edlund, and Newell (2015), chiropractors are participating in promoting positive lifestyle changes in areas common to preventative health care and health promotions. Only one participant was familiar with Healthy People 2020; nevertheless, all participants agreed that health goals are important. Several participants mentioned the health goals and the functionality of the body as being the primary focus. One participant stated, "Chiropractic treatment and adjustments of the spine are the most significant concerns; as a natural healing process for the body to provide benefits against many other diseases such as diabetes, hypertension, and cancer." The participants mentioned the difference between the medical doctors and the chiropractor, by stating, "An MD (medical doctor) is not in health care; they do urgent care or crisis care management." Health goals are a learned behavior for patients to develop a discipline of good habits and to follow those habits with consistency. This theme is relevant because it shows a gap in communicating health

promotion plans within the chiropractic profession that may strengthen their role and ability to offer obesity treatment to their patients in a stand-alone practice or multidiscipline team. This theme also shows how chiropractors view health goals as relevant factors needed to take care of the body and its functions through the proper types of health care.

Chiropractor's role. Several participants mentioned the extensive training that chiropractors receive in nutrition over the amount of training received by medical doctors. The chiropractors' perceptions of treating patients through musculoskeletal options are the foundation for services offered by chiropractors. The chiropractors' education allows them the necessary knowledge to address natural deterioration of the body. According to Leach et al. (2011), chiropractors report that they incorporate public health goals into their practice; however, there is no evidence-based practice information to support these claims. The participants acknowledged that the health promotion practices concerning nutrition had not been previously comparable to the practices being implemented by traditional physicians. Participants noted that the method of treatment is directly determined by a person's body weight, which is considered rather than their BMI. People are diverse in size, and composition; therefore, chiropractors are willing to adjust their services as needed to redefine the role they serve in treating their patients.

Reason for treatment. Several participants spoke of the chiropractic side of treatment and their incorporation of a gym and exercise facility within their clinic. All chiropractors do not have the space to accommodate a fitness facility in their office; however, all participants stated that they provide some form of exercise education to their

patients as part of the treatment protocol. Once the patient has no acute pain, the chiropractors start introducing patients to some form of exercise to support the patient's healing process. Many noted that some patients do not understand what types of exercises to perform and many do not exercise because they are in pain. Exercise education provides additional support of clients at various levels of pain complaints. Participants noted that patients do not normally seek them for weight loss programs, but their practice incorporates weight management components in different ways. One participant offers free screenings to the community at various venues, all based on community wellness. Patients visit the chiropractors' offices for various reasons such as follow-up from initial treatment, referrals for musculoskeletal complaints, or an entire plan that can be structured for health. The common perspective of the data among chiropractors allowed the participants to adjust their practices as needed and required for treatment options. According to Lapane et al. (2013), chiropractors are responsible for inspiring patients to reach optimum health, and the participants echoed this thought as they expressed a desire to consider the whole person when developing treatment protocols. The findings support the argument made by the CDC (2015b) that obesity is a complex health care issue that requires attention.

Referrals. Several participants noted the referral system for doctors as being structured within the hospital networks. Participants mentioned that referrals might also come from neurologists, surgeons, nutritionist, and medical doctors for patients who are already on a weight management program. One participant noted the normal practice of getting referrals for muscle spasm, back and neck pain, and various other medical

professionals. Several participants were appreciative of the referral process; although it may not always result in a patient referral, when initiated the results were noticeable for guidance. According to Penney et al. (2015), it is not customary for primary care physicians to refer to for acupuncture and chiropractic care because they are not confident in their ability to help the patient. Referrals are therefore an important aspect of obesity management. This argument supports the findings of the study by Waring et al. (2009), who established that low levels of referrals and counseling hinder patients and chiropractors from effectively discussing issues regarding weight.

Research Question 3

Additional training. Several participants reported that additional training was always an option for consideration, as the field of chiropractic care has the potential to evolve. One participant observed the uniqueness of the chiropractor in comparison to the primary care physician or medical doctor. These participants mentioned the amount of training that chiropractors receive in comparison to medical doctors. One participant noted that chiropractors are trained more extensively in nutrition than medical doctors. The integrated approach in obesity treatment has seen an increased involvement of chiropractors acting as change agents and tackling obesity (Erwin et al., 2013). Since chiropractic is not widely known as an option for weight loss or nutritional counseling, exploring chiropractic perceptions about their ability to fight obesity may offer valuable insight into the chiropractic profession.

Practice barriers. Several participants mentioned time and reimbursement as an important area to consider for barriers required to offer weight training, weight education,

and weight control. Time is important to manage, as the participating chiropractors might offer quality services to their existing clients if there is adequate time to service all of their patients. According to Leach et al. (2011), chiropractors report that they incorporate public health goals into their practice; however, there is no evidence-based practice information to support these claims. No standard exists for defining health promotion practices within a chiropractic office; therefore, it is not clear whether the health promotion practices carried out by chiropractors are comparable to the roles of traditional physicians whose role is to offer treatment for obese patients who experience various complications such as joint pains. One participant said, "If we advertise the fountain of youth, along with weight loss to have people start coming in here in droves, we would have to expand our facility." This perception speaks to the needs of people and to what they are seeking from chiropractic treatments. An integrated treatment model is one of the most effective approaches to treatment (Collins et al., 2010). Providing the service is the standard and basic requirement, but offering a customized service to support their weight management and weight loss efforts reflects the requests for a continued support system.

Wellness campaign. Several participants were very direct about the wellness programs conducted in the recent past. As wellness campaigns come in many diverse options, the overall perspective of participants aligned with the method or style of how each participant promoted their wellness efforts. One participant discussed plans for wellness planning, by stating, "This January 2017 we are going to start a series of once a month lectures on various topics - weight loss, back pain, neck pain, etc." With a clear

understanding among chiropractors, the patient quality of care model may improve the standards of chiropractic care and the industry overall. This knowledge supports the idea of Adami and Vasconcelos (2008), who argued that preventing and controlling adult and childhood obesity is quite a challenge that requires close teamwork between parents, practitioners, and the patients. Wellness campaigns would, therefore, play an important role in promoting teamwork to encourage better patient care.

Prevention programs. Several participants highlighted the "Precision Nutrition" program as recommended for nutrition and exercise, while also having its benefits for prevention. One participant noted, "It is more of a Sports Nutrition program based on your needs as a person and an athlete based on what you're trying to do. As one of the largest, most recognized nutritional bodies in the world, this program is widely used by many professional athletes." The participants outlined the programs they have implemented in their treatment protocols to improve weight management, reduced pressure on knees and joints while increasing the amount of exercise and dietary planning. It is evident that the prevention programs play an important role in the prevention of obesity. This evidence concurs with the findings by Sinfield et al. (2013) and Waring et al. (2009), who found that commercial weight programs and development, referral options to obesity experts have resulted to the engagement of health care providers in the management of diabetes. These programs therefore also provide significant support for obese patients.

Multidisciplinary teams. The theme of outreach programs provided a contextual reference to which areas were most important to understand with regards to outreach

programs. Participants were very direct about this theme as they addressed the common feelings of developing a better working relationship with medical doctors to align services with many others in need better. Many of the participants identified obesity as the sources of pain for many patients that complain of hip, knee, and back pains. As such, the participants suggest that collaborative efforts of treatment between chiropractors and medical doctors would be recommended. One participant noted that patients are seeing them as primary care doctors when particular pains occur. The obesity management programs that could be implemented are outreach programs by nature, as the needs of dietary, exercise, back and neck treatments and lifestyle changes are highly recommended for adjustments. In line with these findings, Lapane et al. (2013), stated that chiropractors support the management of obesity by suggesting healthy lifestyles such as increased activity, dietary advice, which entails reduced quantity of total calories and the provision of practical programs on how to attain weight loss.

Limitations of the Study

Limitations existed in generalizing this specific population of participant chiropractors in the Mississippi Delta. The themes emerged from data collected during a one-time encounter with 11 participants in the study in the geographical area of the Mississippi Delta. In qualitative research, the smaller sample sizes of 5-15 participants are adequate amounts of participants for this type of study and methodology (Leedy & Ormrod, 2010). This smaller sample size of 11 participants does not reflect the entire population of chiropractor participants, which would be more appropriately studied and represented for generalized considerations in a quantitative study. This qualitative study

consisted of 11 participants and I did not include gender as a criterion for inclusion in this study. The instrument validation occurred by consulting with a field expert at a chiropractic university to test the interview instrument questions before conducting the pilot study and later the complete study with the participants. The pilot study allowed for the chiropractic expert to validate the interview questions and interview protocol used before the actual study and data collection process. According to Trochim (2006), validity is often more accepted in quantitative research while the same standards when measured in qualitative research assess credibility, transferability, dependability, and confirmability. The chiropractic expert evaluated this qualitative standard of measurement by reviewing the interview protocol and interview questions with consideration of the potential study participants and the framework of inquiry. The chiropractic expert considered his knowledge of the chiropractic profession and expertise as a professor to consider whether the interview protocol and questions would produce results that could be repeated by another researcher as well as produce a rich data collection in regard to the perceptions of chiropractors and obesity management.

Significance of Findings and Social Change Implications

This qualitative research study explored and examined the perceptions and experiences of participant chiropractors in the Mississippi Delta. Specifically, I sought to understand the perceptions and experiences from the perspective of chiropractors. The discussion included emerging core themes, results and findings that addressed the primary research questions that guided the study. There is little research that systematically investigates how chiropractic treatment can contribute to the management

of people with obesity in the Mississippi Delta region. The results of these data explored and examined the lived experiences of chiropractors in the Mississippi Delta. The emerging 15 core themes were significant to address the primary research questions but also generated new knowledge to address the gaps in the literature that support this study. The findings from this study may help promote positive social change by assisting with the creation of patient care models that include chiropractors on a health care team addressing obesity management. As well, positive social change may consist of increased understanding of chiropractors' perceptions of obesity management and how their perceptions can influence the implementation of evidence-based practice that incorporates Healthy People 2020 Public Health initiatives into their treatment protocols which supports the need for more evidence based practice information. This research study is significant in providing leadership an opportunity to explore the perceptions of chiropractors' located in the Mississippi Delta regarding obesity management and their alignment with public health initiatives outlined in Healthy People 2020. From the data collected, influential leadership might develop new policies and management practices for the benefit of chiropractors in the Mississippi Delta. The implications for positive social change include the potential for increased awareness of chiropractic service benefits, the ability to define health promotion in a chiropractic office and the possibilities for establishing multidiscipline health care teams that include chiropractors as part of the patient care model.

Recommendations

In this qualitative study, I explored the perceptions of 11 chiropractors in the Mississippi Delta region with regards to obesity management within their practice. The emerging data from this study added new knowledge by filling in the gap in the literature regarding the importance of providing opportunities to add chiropractic practitioners in obesity intervention. The study also addressed the gap in literature the indicated a lack of understanding of the chiropractic profession and their ability to offer valuable contributions to obesity management. Leach et al., (2011), mentioned that we need to understand chiropractors' perceptions regarding obesity management in their practice and that many chiropractors are reporting the implementation of public health goals within their practice; however, there is no evidence-based practice information available to support their claims. The study findings indicate a strong stance from the chiropractors' perceptions of their profession as non-medical providers who can contribute valuable assistance in obesity management. Many of the participants indicated that they are already providing some type of service to address obesity. One participant stated:

> I do BMI, but we don't heavily rely on BMI because I can take a patient's height, weight, and blood pressure. There is something, skewed with the calculation of the BMI, in my opinion (Participant – Crichton).

This participant's perception indicates a possible difference how chiropractors categorize obese patients versus how medical doctors categorize obese patients. Based on the study participants' response to obesity classification, a larger scale exploratory research study

including all board certified chiropractors would be relevant to evaluate possible ways to standardize health promotion practices across the health care professions.

The current study findings also reveal opportunities for future research that may include pilot studies assessing the implementation of multidiscipline health care teams that include chiropractors as part of a collaborative patient care team. Chiropractors in this study report a desire to establish a collaborative relationship with medical practitioners.

Recommendation for Future Research

Based on the perceptions expressed by the 11 chiropractors that participated in this study, future research recommendations include expanding the research pool to include the entire state of Mississippi and incorporate a study that captures the perceptions of patients that are receiving care from both chiropractors and medical providers. Future research will be necessary to add to the body of knowledge in a new approach to developing a model for inclusion. Several themes emerged, but one in particular indicates future research is necessary. The theme that indicated a lack of knowledge of Healthy People 2020, which is a public health initiative aimed at improving the length and quality of health to everyone. This theme indicates a possible need for future research that defines public health initiatives in a chiropractors' office and provide evidence-based information to support the claim. Such an effort could be accomplished through a quantitative study that capture data on the number of chiropractors in the state of Mississippi performing health promotion services in their clinic and the outcome of the treatment. Further investigation could include providing the chiropractors with the goals

of Healthy People 2020 and evaluating their understanding for implementation into their practice, if possible. One aspect of the future research may include further qualitative inquiries to understand the patient perceptions concerning health promotion services rendered in a chiropractors' office. Since both medical providers and chiropractors focus on improving their patients' health outcome, a comparative case study may be beneficial future research that helps to identify how chiropractors can participate in multidiscipline collaborations that focus on targeted, integrative care.

Recommendations for Practice and Policy

According to the research findings, Chiropractors play an important role in the management and treatment of obesity. However, they face the challenge of lack of support from the medical practitioners. As such, I would recommend that increased awareness is enhanced among the health care providers so that other professionals can better understand the role of chiropractors and support them in their duties. Awareness can be realized through workshops and community health seminars to promote the chiropractic profession. The workshops and community health seminars content will outline the types of services available and the benefits of each service. The workshops will also allow for questions and answers to ensure participants gain valuable knowledge of how chiropractic care can be incorporated into their health care plan. Opportunities for dissemination also exist for publications in academic and scientific peer-reviewed journals.

The research data provided a clear perspective and perceptions of chiropractors working in the field and their role in treating obesity in the Mississippi Delta region. The

data gathered during the interviews reflected a challenge in insurance policies that restrict chiropractors from billing for nutritional counseling or any services related to obesity management. Future research should focus on understanding current policy restrictions and investigate ways to improve policy to include chiropractors in the pay structure for wellness care. Hawk et al., 2012, brings light to the problem with how insurance payers categorize maintenance care (chiropractors' defined wellness care) as not being medically necessary and therefore insurance does not provide provider reimbursement for services. Current insurance models pay chiropractors for subluxations and procedures that fall within the guidelines established for chiropractic care; wellness is not in the pay structure for chiropractors. The literature review and findings from this study indicate that chiropractic encompasses much more than subluxation therapies – chiropractic involves psychological, biochemical, and spiritual and mental aspects of patient care (Smith & Carber, 2009). The knowledge gained from future quantitative and case studies can fill the gap of understanding the types of services provided by chiropractors, why patients regularly seek these providers and assess any barriers to payment that may exists in regard to wellness prevention services.

This research study is significant in providing leadership an opportunity to explore the perceptions of chiropractors' located in the Mississippi Delta regarding obesity management. From the data collected, influential leadership might develop new policies and management practices for the benefit of chiropractors in the Mississippi Delta. Also, many patients, who use chiropractic services, see the chiropractors as leaders in the health care arena; therefore, this study was significant for people in the Mississippi

Delta region based on the experiences and perceptions of the chiropractors that provided a greater depth of knowledge of their ability to perform as leaders in the community.

Disseminations

This study may help promote the chiropractic profession by providing insight on the role of chiropractors and the challenges they face in their profession. I therefore intend to hold seminars and wellness campaigns targeting obese patients with the aim of addressing the misleading mentality that most people have in regard to the roles of chiropractors. I will further use presentations and workshops to encourage obese patients to seek services offered by chiropractors because they are made aware of the value chiropractors provide in the health care system. I will also publish articles on various platforms such as newspapers, and academic journals to disseminate the knowledge obtained in this study to other people.

Conclusion

Seeking a better understanding of the perceptions of chiropractors in the Mississippi Delta in regard to obesity afforded me the opportunity to gain valuable knowledge and understanding of the chiropractic profession and the role they play in patient care. Obtaining a better understanding of their perceptions and profession is important when considering their role in obesity management and the possible services they can offer individually and as part of a multidisciplinary team. The knowledge gained from this study allows us to see chiropractors as more than just professionals who offer spinal adjustments, but rather as nonmedical providers who can offer a variety of services that could positively impact overall health, which encompasses obesity management.

The research findings offer rich descriptions of the chiropractors' perceptions of their profession, obesity management, health care and overall patient care. This qualitative study provides personal accounts of the chiropractors' lived experiences in their clinical environment. The results of this study may point to some valuable information about the challenges faced by chiropractors who would like to extend weight loss services, work as part of a multi-discipline team, and make certain the public is aware of the qualifications of a chiropractor and their ability to lead in a weight management capacity.

Drastic and rapid changes have occurred in the health care sector. Chiropractors have demonstrated their perceptions in regard to their knowledge, skills, and abilities to address obesity in their clinics. Chiropractors, through their perceptions, indicate that they are more than capable of being key players in the health care arena. Patient care would see significant improvements with a multi-discipline health care team and chiropractors welcome the idea of such collaboration.

The research provides insight on the challenges faced by Mississippi Delta chiropractors in their practice. These challenges include poor collaboration with other health care practitioners, and insurance issues arising from the fact that most insurance providers fail to pay chiropractors for counseling and obesity related services. Highlighting these issues is important as it prompts the establishment of strategies to address barriers within the chiropractic profession and improve the outcome of obesity patients. Chiropractors are nonmedical health care providers that provide a wide range of services to their patients. This study and possible future studies can contribute to positive

social change by bridging the gap between medical patient care and nonmedical patient care with the hopes of creating multidiscipline health care teams and improving upon the current patient care model with increased awareness and more targeted interventions.

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Appendix A: Confidentiality Agreement

Name of Signer:

During the course of my activity in assisting with statistical analysis software guidance for this research: **"Perceptions of Chiropractors in Mississippi Regarding Obesity"**, I will have access to information, which is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participants.

I, **_____,** agree with the following statements:

By signing this Confidentiality Agreement I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.

2. I will not in any way divulge, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.

3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.

4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.

5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.

6. I understand that violation of this agreement will have legal implications.

7. I will only access or use systems or devices I'm officially authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: **Date:**

Appendix B: Interview Protocol

Date: _____

Interviewer: _____

Interviewee: _____

1. Introduce myself, I, to the participant.
2. Discuss with the participant the research and type of information that will be collected during the interview.
3. Discuss the contents of the Informed Consent Form and obtain the participant's signature.
4. Review the interview process with the participant by reminding them of the interview duration and need for private, uninterrupted time.
5. Inform the participant that the interview will be digitally recorded and I will use the audio recording to accurately transcribe their responses.
6. Inform the participant that their participation in the interview is voluntary, and they have the right to stop the interview at any time.
7. Inform the participant that all information obtained in the interview will remain confidential as stated in the Confidentiality Agreement.

The interview will begin after the participant acknowledges understanding of the research parameters and provide written consent to interview.

Appendix C: Interview Questions

The interview can be completed by telephone/Skype or onsite per the participant's request. The participant will be reminded of the intent of the study and aim to keep their interview confidential; therefore, the interview should take place in a quiet, private place. The interview is expected to take up to 30 (thirty) minutes.

Date: _____

Location: _____

Name of Interviewer: _____

Name of Interviewee: _____

Table C1

Interview Questions

RQ1	Interview Q1	Are you aware of the general obesity trend in the Mississippi Delta?
RQ1	Interview Q2	Do your patients represent the general obesity trend in the region?
RQ1	Interview Q3	Are you familiar with any regional or local government initiatives to promote healthy weight among citizens of the Mississippi Delta?
RQ1	Interview Q4	What in your opinion are some of the causes for obesity prevalent in the Mississippi Delta?
RQ2	Interview Q5	What are your guidelines for categorizing a patient as obese or overweight?
RQ2	Interview Q6	What are the effects of obesity on an otherwise healthy person?
RQ2	Interview Q7	Are you familiar with the long-term health goals outlined in Health People 2020?
RQ2	Interview Q8	Do you believe that chiropractors in general can play a role in addressing the obesity problem in the Mississippi Delta?

(table continues)

RQ2	Interview Q9	Do you have a specific program to help patients with weight loss or weight gain prevention goals?
RQ2	Interview Q10	Do you get patients that come to you specifically for weight loss or weight gain prevention?
RQ2	Interview Q11	Do you get referrals from traditional medical practices to support patients' weight management efforts?
RQ3	Interview Q12	Does it require additional training for a licensed chiropractor in the Mississippi Delta to offer weight management services?
RQ3	Interview Q13	Are weight management services within the scope of practice for chiropractors in the Mississippi Delta?
RQ3	Interview Q14	What are the barriers (or steps required) in setting up a typical chiropractic facility to extend weight management programs to its patients
RQ3	Interview Q15	Do you conduct wellness campaigns to raise familiarity among the general public about the benefits of chiropractic care on overall health & wellness?
RQ3	Interview Q16	Does your campaign specifically highlight a weight loss or weight prevention program?
RQ3	Interview Q17	In your opinion, would it be feasible for chiropractors in the Mississippi Delta to initiate an outreach into key hospitals and traditional medical providers and develop collaborative weight management program?

Note. The actual name of the participant will only be recorded on field notes to protect the identity of the participant. This interview sheet will contain a unique identifier.

Appendix D: Participant Demographic Survey

1. Please indicate the number of years you have been a board certified practicing chiropractor.

   _____ 1 year _____ 2 years _____ 3 years

   _____ 4 years _____ 5 plus years

2. Please indicate if you have additional certifications.

   _____ Nutrition Counseling _____ Wellness Counseling

   _____ Weight Loss Counseling _____ Other: _____

3. Have you practiced in other areas outside of the Mississippi Delta?

   _____ Yes _____ No

4. Are you aware of the obesity trend in the Mississippi Delta?

   _____ Yes _____ No

5. Please indicate your age category:

   ____ 18 – 25 ____ 26 -40 ____ 41-60 _____ over 60

   Please indicate your gender: _____ Female _____ Male.

Appendix E: Participant Interview Log

Table E1

Participant Log

No.	Participant	Interview Date	Interview Location	Duration
1	Damara	June 2, 2016	In Person	13:35
2	Boony	July 12, 2016	In Person	41:06
3	Claretta	October 20, 2016	Phone	38:38
4	Gordan	December 15, 2016	Phone	28:08
5	Almire	December 15, 2016	Phone	27:38
6	Benny	December 15, 2016	Phone	33:33
7	Ulla	January 28, 2017	Phone	1:31:33
8	Obediah	February 2, 2017	Phone	21:41
9	Gib	February 10, 2017	In Person	23:00
10	Berti	February 10, 2017	In Person	22:08
11	Crichton	March 6, 2017	In Person	29:36

Appendix F: Recruitment E-mail

Please Share Your Expertise as a Chiropractic Provider for Obese Patients

My name is Phelesia Foster and I am a doctoral candidate at Walden University. I am actively seeking participants to volunteer in a research study. The purpose of this research is to explore perceptions of Mississippi chiropractors regarding obesity treatment.

I realize your time is valuable to you and I appreciate your consideration to participate in this study. In order to fully understand your expertise, we need to meet for a brief interview of approximately 30 (thirty) minutes at a time most convenient for you. The meeting can be held in person at your office during a time when we can conduct the interview in private and without interruptions. The interview can also be done by phone/video conferencing (Skype) at a time convenient for you without interruptions. The interview meeting is designed to simply get more information about your experience as a practitioner treating obese patients in the Mississippi. Participation is voluntary and all information will be kept strictly confidential.

If you are willing to participate in a brief interview, please contact me by phone at xxx to schedule a mutually agreeable interview time.

Sincerely,

Phelesia Foster

Doctoral Candidate

Walden University

Appendix G: Recruitment Flyer

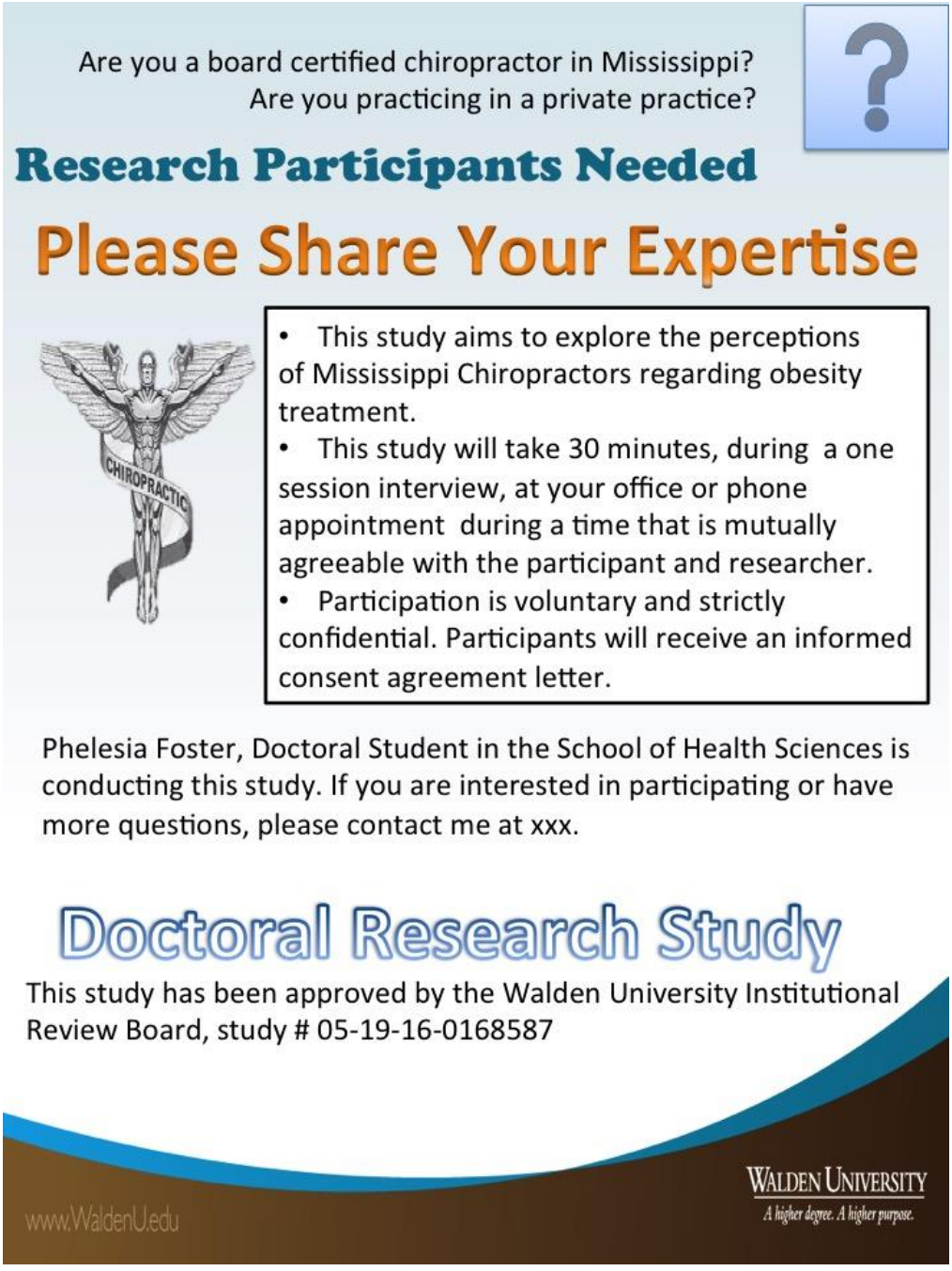

Figure G1. Recruitment flyer.