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African Americans' Nutrition and Dietary Management Experiences to Mitigate Congestive Heart Failure

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Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral dissertation by

Chukwuemeke Joseph Onokwai

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2024

Abstract

African Americans' Nutrition and Dietary Management Experiences to Mitigate Congestive Heart Failure

by

Chukwuemeke Joseph Onokwai

MPH, University of East London, 2015

MD, Windsor University School of Medicine, 2010

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

Congestive heart failure (CHF) is prevalent in the United States; the American Heart Association has estimated that the total costs as measured by medical spending for treating CHF will rise to $53 billion in 2030. The problem addressed in this study was that the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions in CHF were unknown. The purpose of this study was to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions in CHF. The theory that guided this study was critical race theory. The study's three research questions involved identifying the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management. A qualitative methodology was appropriate for the study because the perspectives of individuals were being sought, rather than relationships between variables being explored. Using Braun and Clarke's thematic analysis strategy, results yielded themes of the need for education for African Americans concerning nutritional supplements, healthy snacking options, and cooking tips; and the need for a social support network to encourage them to manage their CHF condition. The findings may help healthcare professionals implement various dietary interventions, including a social support network to encourage them in managing their CHF condition and patient education about nutritional supplements, healthy snacking options, and cooking tips. Implementing these interventions would help address the disparity in the prevalence of CHF among African American minorities.

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Chapter 1: Introduction to the Study

Congestive heart failure (CHF), the inability of the heart to pump enough blood throughout the body to ensure all organs have enough oxygen, is the most common cause of readmission for Medicare patients in the United States (Chamberlain et al., 2018). Over 5.7 million Americans have been affected by CHF, and it accounts for over 1 million hospitalizations every year in the United States (Chamberlain et al., 2018). African Americans suffer a disproportionately higher incidence of CHF as compared with other races (Ejim, 2019). Nutrition and dietary management may produce a positive impact on CHF patients (Temple, 2018; Wickman et al., 2021). This study focused on the nutrition and dietary management experiences of African American CHF patients in Oklahoma and the effect of nutrition and dietary interventions on CHF.

Chapter 1 introduces the study and research problem. In this chapter, I discuss the background of the study, the problem statement, the purpose statement, and the research questions. In Chapter 1, the conceptual framework for grounding this study and the nature of the study will also be presented. Chapter 1 further covers the definitions, assumptions, the scope and delimitations, the limitations, the significance of the study, and a chapter summary.

Background

Research evidence suggests inequities and racial bias in health care, especially in CHF treatment for African Americans (Breathett et al., 2021; Chen et al., 2017; Ejim, 2019; Forde et al., 2021). Chen et al. (2017) suggested that African Americans with CHF were less educated and sicker as compared to White older adults with CHF. Ejim (2019) evidenced that African Americans had a higher incidence of CHF at an earlier age of onset and with more rapid progression compared to other races.

Due to the high rates of CHF among Blacks, Ejim (2019) argued that there was a lack of support for African American family care providers of CHF patients who were facing challenges and suffering growing caregiver burden, depression, stress, and financial strains compared to European American caregivers. Language barriers threaten how caregivers communicate and interact with their patients, thus reducing the quality of care. According to Breathett et al. (2021), a lack of qualified and experienced translators increases the risks of patients receiving care of poor quality or not following their caregiver’s instructions due to misunderstandings.

Forde et al. (2021) focused on whether perceived discrimination was related to health behaviors over time and whether associations of discrimination with behaviors varied by the attribution of discrimination. The results of the study indicated that discrimination was associated with smoking status, which might provide a possible mechanism through which discrimination impacted African American health. Chen et al. (2017) highlighted that at least one in five adults across the United States has experienced discrimination while receiving care. Racial discrimination has affected the delivery of care, which has made it difficult for individuals from low-income communities to access quality care.

In addition to the inequities in CHF care and support for African American patients (Breathett et al., 2021; Chen et al., 2017; Ejim, 2019; Forde et al., 2021), Doshi et al. (2017) and Teerlink et al. (2017) argued that no therapies or interventions have been conclusively effective in reducing CHF. Doshi et al. (2017) reviewed and evaluated evidence regarding CHF management programs and interventions among racial and ethnic minorities. The results indicated that none of the previous studies provided conclusive evidence about such programs and interventions' effectiveness in reducing CHF cases.

Despite the previous studies being inconclusive, some interventions have shown some effect. Nutrition and dietary management may produce a positive impact on CHF patients (Temple, 2018; Wickman et al., 2021). Temple (2018) focused on research findings concerning refined carbohydrates and saturated fatty acids and their relationship to CHF between 1974 and 2014. The results showed that refined carbohydrates were not related to CHF. Instead, Temple found evidence that the link between carbohydrate-rich foods and coronary heart disease had steadily strengthened despite the fact that the relationship between saturated fatty acids and coronary heart disease might have been exaggerated. Specifically, Temple evidenced that refined carbohydrate consumption increased the risk for CHF while the intake of whole grains decreased the risk by 10% to 20%.

Wickman et al. (2021) summarized existing evidence related to CHF dietary recommendations and found evidence that dietary approaches and interventions could have a positive impact on CHF patients. According to Wickman et al., precision nutrition approaches could be used to improve clinical care, satisfy the demands of a wide range of patients, and improve medical nutrition therapy. Meanwhile, Wickman et al. argued that the lack of agreement on thorough dietary recommendations and practical evidence constrained the capacity of healthcare professionals to put clinical advice into practice.

White et al. (2017) investigated the personal motivation, practices, and barriers of African American communities in Mississippi involving their dietary practices and found that while most participants had the desire to attain overall good health and eliminate associative risks for heart disease, personal motivations, the cost of food, transportation, age, and time required for food preparation were the significant barriers to healthy eating. White et al. indicated that changes in diet could influence the risk of heart disease. Meanwhile, White et al. suggested that motivation, practices, and barriers of African American communities in Mississippi involving their dietary practice were cultural and regionally specific.

Having conducted a systematic review of the literature, Ejim (2019) suggested that Family Heart Failure Home Care, a telephone coaching intervention adapted to the cultural preferences of African Americans, was an effective culturally sensitive CHF intervention. Focusing on a cocreated intervention in older African American women, Wright et al. (2021) found that the participants were willing to change their diet and behavior to achieve better health. Forde et al. (2021) evidenced that African American women had a higher body mass index and atherosclerotic cardiovascular disease (ASCVD) risk while they were less likely to attempt weight loss.

Previous researchers who have studied the prevalence of CHF in African Americans and investigated nutrition and dietary management have highlighted significant gaps that exist in the literature. Teerlink et al. (2017) argued that no therapies had conclusively been effective in reversing CHF and hence highlighted the need for future research. Temple (2018) argued that race/ethnicity might impact the relationship between diet and CHF; hence, it is recommended for future investigations.

More recently, Schnabel and Benjamin (2020) recommended understanding and identifying those who were the target of bias, which could help develop effective interventions. Alegria et al. (2021) indicated that little progress had been made in reporting race and socioeconomic status (SES) for CHF patients in the United States. Wickman et al. (2021) also called for randomized controlled interventions to offer definitive evidence related to the use of dietary approaches in CHF management.

Further, existing research indicates that a knowledge gap remains regarding the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. In response to filling in this problem space and addressing the research calls made by Teerlink et al. (2017), Temple (2018), Schnabel and Benjamin (2020), and Alegria et al. (2021), the purpose of this study was to research the phenomenon using a qualitative phenomenological method and from the critical race theory (CRT) framework perspective.

Problem Statement

The problem addressed in this study was that the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF for this population were unknown. CHF is prevalent in the United States; the American Heart Association

(AHA, 2021) estimated that the total costs, as measured by medical spending for treating CHF, would increase to $53 billion in 2030. The AHA also projected that by 2040, healthcare costs would hit 30% of the GDP in the United States. Evidence suggests that African Americans suffer a disproportionately higher incidence of CHF at an earlier age of onset and with more rapid progression, as compared with other races (Ejim, 2019). The general problem was that no therapies or interventions had been conclusively effective in reversing CHF (Doshi et al., 2017; Teerlink et al., 2017). The specific problem was that the nutrition and dietary management experiences of African American patients who suffer from CHF remained unknown, as well as the effect of nutrition and dietary interventions on CHF (Alegria et al., 2021; Morris et al., 2018; Schnabel & Benjamin, 2020; Teerlink et al., 2017; Temple, 2018).

Purpose Statement

The purpose of this study was to explore the nutrition and dietary management experiences of Black American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. The target population included African American adults diagnosed with CHF who had utilized nutrition and dietary management in Oklahoma. The instrumentation for data collection included semistructured interviews. Braun and Clark’s (2006) thematic analysis method was followed to analyze the data collected. This study increased knowledge of CHF interventions, dietary approaches to CHF, and African American CHF patients. This study has practical implications and may promote a positive social change. The results of this study may provide better information for African American patients suffering from

CHF in Oklahoma, contribute knowledge to public health organizations and practitioners, improve CHF care for African Americans, and reduce their family stress and financial burden.

Research Questions

The study was guided by the following research questions:

RQ1: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management?

RQ2: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination?

RQ3: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma?

Conceptual Framework

The conceptual framework grounding this study was CRT. CRT is a framework for the social sciences that involves looking at society and culture in relation to how race, law, and power are categorized in the United States (Delgado et al., 2017). CRT is a body of legal study and an academic movement of civil-rights scholars and activists in the United States whose proponents aim to question traditional American liberal approaches to racial justice and to critically explore how race and the law intersect in the country (Ladson-Billings, 1998).

CRT was an appropriate conceptual framework for grounding this study and facilitating the data analysis. CRT proponents maintain that racism is innate in institutions of the United States to the extent that they function to create and then maintain social, economic, and political inequalities between Whites and African Americans (Crenshaw, 2011). CRT was suitable for this study also because it had been broadly applied to researching and understanding the structure or nature of racism and the goal of eliminating all race-based and unjust hierarchies (Crenshaw, 2011; Delgado et al., 2017).

In this study, CRT was used to understand the perspectives of experiences of African American patients with CHF within the U.S. healthcare system. According to Freeman et al. (2017), African Americans experience structural racism and macrolevel systems that reinforce inequities among racial/ethnic groups. CRT was employed in health research by Cunningham and Scarlato (2018) and FitzGerald and Hurst (2017) to identify the necessity for healthcare workers to address the impact of implicit biases in healthcare disparities. Therefore, CRT was selected as the conceptual framework for grounding this study, considering its relevancy and applications to studying the race-based experiences of African Americans.

Nature of Study

This study used a qualitative research method. A qualitative method provides opportunities for a researcher to explore phenomena and ask *how* and *why* questions (Yin, 2018). As such, a qualitative research method can facilitate open-ended explorations of phenomena and allow a researcher to identify themes that are not anticipated by the researcher (Yin, 2018). A qualitative research method was used in this study to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF.

A phenomenological research design was used. Researchers use phenomenological study to focus on the perspectives and lived experiences of study participants (Merriam & Tisdell, 2015). A phenomenological research design was used to explore the lived experiences of remote teams about the phenomenon under study. I conducted purposive sampling to identify participants who met the recruiting criteria outlined and invited them for semistructured interviews following an interview protocol. The inductive approach is used to combine the data from interviews and then look for commonalities between and within the data (Merriam & Tisdell, 2015).

Definitions

This section covers a list of definitions and terminologies that may help readers comprehend the research problem under study and the research findings. All the terms are listed alphabetically.

African Americans: In the United States, people who have some or all their ancestry in any of the Black racial groupings of Africa are referred to as African Americans (Bryc et al., 2015).

Congestive heart failure (CHF): In CHF, the heart lacks the ability to pump enough blood through the body to ensure a sufficient supply of oxygen (Chamberlain et al., 2018).

Discrimination: Racial discrimination involves any discrimination against a person on the basis of their skin color and ethnic origin. Due to racial discrimination, African Americans have found it challenging to access quality public services such as medication and education.

Nutrition and dietary management: Nutrition and dietary management refers to the practice of providing nutritional options for individuals and groups who have diet concerns through the supervision of food services (Temple, 2018; Wickman et al., 2021).

Phenomenology: Phenomenology is the term for the philosophical study of the underlying principles of experience and consciousness. It was started as a philosophical movement in the early 20th century by Edmund Husserl.

Racial bias: Racial bias is an implicit bias, which includes stereotypes and attitudes that subconsciously influence individuals' understandings, decisions, and actions.

Assumptions

A researcher may not be able to control assumptions that are regarded as self-evident truths in the absence of proof (Theofanidis & Fountouki, 2019). The following assumptions were identified in this study. The topic-specific assumption was that collecting information and learning the experiences of the selected African American adult patients would yield insights for conducting this study. This assumption was made because the aim of this study is to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF.

The theoretical assumption was that CRT was an appropriate framework for grounding this study. The rationale for selecting CRT was based on its relevancy and applications to studying the race-based experiences of African Americans. This assumption was made provided that researchers used phenomenological research to focus on the perspectives and lived experiences of study participants (Merriam & Tisdell, 2015).

Scope and Delimitations

Delimitations are qualities that are under the researcher's control and serve to specify the parameters of a study (Theofanidis & Fountouki, 2019). Two delimitations were considered. The first was that the participants were delimited to those located in Oklahoma. A second delimitation was that the instruments for data collection were delimited to semistructured interviews.

Limitations

Conducting one-on-one interviews in accordance with the COVID-19 rules established by the U.S. government when in-person contact was not available was one predicted restriction. The second anticipated limitation was associated with the sampling method and the target population of interest. Ten African American adult patients in Oklahoma who met the inclusion criteria outlined were selected as the study participants. This suggested that the study's generalization may be restricted to this demographic and the state of Oklahoma as a whole and may not be applicable to other areas or nations.

Finally, semistructured interviews were used as the tool for data collection; as a result, one predicted limitation was the degree of honesty and integrity with which each study participant responded to the interview questions. Additionally, semistructured interviews were limited in that study participants’ responses depended on their understanding of the topic. Poor or limited responses led to poor data collection for the study.

Significance

This study increased knowledge of CHF interventions, dietary approaches to CHF, and African American CHF patients. Teerlink et al. (2017) argued that no therapies had conclusively been effective in reversing CHF and hence highlighted the need for future research. Temple (2018) argued that race/ethnicity impacted the relationship between diet and CHF and hence recommended future investigations. Schnabel and Benjamin (2020) recommended understanding and identifying those who were the target of bias, which could help develop effective interventions. Alegria et al. (2021) indicated that little progress had been made in reporting race and SES for CHF patients in the United States. Most recently, Wickman et al. (2021) also called for the need for randomized controlled interventions to offer definitive evidence related to the use of dietary approaches in CHF management.

Further, existing research has indicated that a knowledge gap persists regarding the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. This study filled in this problem space and addressed the research calls made by Teerlink et al. (2017), Temple (2018), Schnabel and Benjamin (2020), and Alegria et al. (2021). The findings of this study may benefit researchers and scholars in the fields of CHF interventions, dietary approaches to CHF, and African American CHF patients' studies.

This study has practical implications and may promote a positive social change. Chen et al. (2017) argued that despite evidence of the benefits of home tele-monitoring on mortality and hospitalizations, few care models had been designed specifically for African Americans with CHF. Wickman et al. (2021) argued that the absence of a consensus for comprehensive dietary guidelines and pragmatic evidence limited the ability of healthcare providers to implement clinical recommendations. Wickman et al. (2021) proposed that effective, evidence-based interventions for CHF prevention and management were needed to improve patient longevity, symptom control, and quality of life. By exploring the vital insights of African American adults diagnosed with CHF who had utilized nutrition and dietary interventions, this study provided better information for patients suffering from CHF in Oklahoma and may help mitigate their CHF. The findings contribute knowledge to public health organizations, practitioners, responders, and the general public regarding the lived experiences of African Americans with CHF. In improving the CHF care and overall well-being of the African American community and reducing the stress and financial burden of the African American families of CHF patients, this study may also promote positive social change.

Summary

Chapter 1 introduced the study. Chapter 1 covered the sections and discussions of the background of the study, the problem statement, the purpose statement, and the research questions. In Chapter 1, the conceptual framework for grounding this study and the nature of the study were also presented. Chapter 1 further introduced the definitions, assumptions, the scope and delimitations, the limitations, the significance of the study, and a chapter summary. The problem addressed in this study was the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. The purpose of this study was to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. Three research questions that were aligned with the research problem and purpose of the study guided this research.

CRT guided the study. The nature of this study was qualitative phenomenological research with semistructured interweaves as the instruments for data collection. This study advanced knowledge and contributed to the scholarship on CHF interventions, dietary approaches to CHF, and African American CHF patients. Chapter 2 includes an extensive review of the literature that supports the purpose of the study.

Chapter 2: Literature Review

The purpose of this study was to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. This chapter provides an overview of existing knowledge on the research topic, introduces the theory underlying the study, and contains a detailed description of my focus as the researcher. The main goal of a literature review is to examine earlier studies that are relevant to the research topic in order to assist the researcher in collecting crucial data for the study and creating an excellent research design. CRT provided the conceptual foundation for this investigation. My strategy was consistent with current study methodologies. Before gathering data for new investigations, researchers should become familiar with prior studies, according to Elsbach and Stigliani (2018). I used several secondary data sources to locate pertinent literature for review. In this chapter, I also discuss the backdrop, general goals, and objectives of the study. The search for relevant literature was done using electronic databases such as Pedro, MEDLINE, and Science Direct. Other search engines, such as Google Scholar, were also utilized.

Literature Search Strategies

The search terms and phrases below were utilized in gathering literature that related to the research topic: *congestive heart failure*, *nutrition and dietary management*, *African Americans*, *racial bias*, and *racial discrimination*. The literature in this chapter was built on existing knowledge of the research topic.

I employed several strategies to locate pertinent material. A thorough analysis of the data was conducted. Furthermore, the most recent data on the subject were gathered from national government websites. I had the chance to assess the state of organizational leadership precisely after going over the data presented on organizations' websites. Big databases such as EBSCOhost and ProQuest were used extensively to locate literature relating to the research topic. Additional information was generated from Google Scholar and other Internet search engines. An in-depth search of peer-reviewed journals produced within the last 5 years was used, and it resulted in significant information on the topic. The articles reinforced the argument that African Americans with CHF experience challenges in nutrition and dietary management.

The research topic's specific literature was insufficient, but sources closely connected to it that had been published since 2018 were also used. The search for important evidence was not constrained by the date range. Furthermore, there were no date limits on news summaries, government reports, court decisions, resolutions, or organizational position statements. Significant publications that were published more than 5 years ago were employed to confirm the suitability of the study design and make sure that the chosen approach was in line with the crucial research issue. A variety of phrases, topics, and word combinations were used to find the appropriate sources required to generate the literature.

Conceptual Framework

CRT provided the conceptual foundation for this investigation. CRT is a framework for the social sciences that involves looking at society and culture in relation to how race, law, and power are categorized in the United States (Delgado et al., 2017). CRT is a body of legal study and an academic movement of civil-rights scholars and activists in the United States whose proponents aim to question traditional American liberal approaches to racial justice and to critically explore how race and the law intersect in the country (Ladson-Billings, 1998). Proponents of CRT assume that racism is an essential element of U.S. culture and “White over Black involves not only material social relations but also has an immense ideological presence in society” (Delgado et al., 2017, p. 45). The theory indicates that social inequalities in the United States, especially in the public sector, are due to racist humans and juridical volitions.

There are several central tenets of CRT, the first of which is that race is socially rather than biologically constructed (Delgado et al., 2017). This tenet implies that race does not originate on the basis of biological differences but rather in social norms. Race is, in fact, distinct from specific differences in appearance that may be associated with race, such as skin color, hair texture, and so on. The second tenet states that racism is usually experienced by people of color in the United States, and instances of racism are not aberrational (Delgado et al., 2017). Third is the idea that newly instituted legal protections or setbacks for people of color generally serve the dominant group, or White people, in the United States (Delgado et al., 2017). This implies that those legal changes are not generally made to benefit people of color but rather the dominant group. The fourth tenet states that people of color are perceived by the dominant group in stereotypical ways that benefit the group (Delgado et al., 2017). The fifth tenet states that no person can be adequately represented by membership in a single group and that identities are the result of intersectionality (Delgado et al., 2017). The final tenet is the idea that people of color can speak to the experiences and on behalf of other people of color in a way that individuals who are a part of the dominant group cannot adequately do.

CRT was an appropriate conceptual framework for grounding this study and facilitating the data analysis, insofar as American institutions serve to establish and subsequently maintain economic, social, and political disparities between Whites and people of color. Notably, African Americans and critical race theorists contend that racism is ingrained in the country (Crenshaw, 2011). CRT was suitable for this study also because it has been broadly applied to researching and understanding the structural or institutional nature of racism and the goal of eliminating all race-based and unjust hierarchies (Crenshaw, 2011; Delgado et al., 2017).

Freeman et al. (2017) illustrated that CRT could be used to understand the perspectives of African American people about structural racism and macrolevel systems that reinforced inequities among racial/ethnic groups. Cunningham and Scarlato (2018) and FitzGerald and Hurst (2017) used CRT in health research to understand the need for healthcare professionals to address the role of implicit biases in disparities in healthcare. Therefore, CRT was selected as the conceptual framework for grounding this study, considering its relevancy and applications to studying the race-based experiences of African Americans.

Review of Literature

The Experience of Living With Chronic Heart Failure

Over 30% of global deaths have been linked to cardiovascular disease (CVD). One condition that significantly contributes to CVD is CHF, which is a leading cause of death in older people in the United States and other developed countries (Jahmunah et al., 2019). Across the world, the prevalence rate of CHF among individuals aged 45 years and above ranges between 3% and 5%. However, Acharya et al. (2019) argued that the prevalence of CHF can be higher among older people because of underdiagnosis of mild to moderate CHF. The majority of CHF patients are females due to their longer life expectancy (Acharya et al., 2019). In older people above 75 years, CHF rates are higher than in those between 55 and 65 years. When the heart's ability to pump blood is impaired, tissues are not adequately hydrated, which causes CHF. Numerous underlying diseases, such as congenital heart disease, hypertension, valvular heart disease, ischemic heart disease, and valvular heart disease, may cause it (Hamilton-Elliott et al., 2018, p. 368). In the body, CHF can coexist with other conditions, such as kidney failure and diabetes. CHF leads to deterioration of essential body functions, weight gain as fluid build-up, and intermittently unpredictable life-threatening crises.

CHF has no cure. The most severe type of CHF causes a 50% yearly mortality. According to Seah et al. (2019), there have been medical interventions for heart conditions, together with new and advanced healthcare practices, which have enhanced the experiences of patients with CHF in recent years. However, the social and economic impact of CHF on families remains high; therefore, low-income families remain overwhelmed. Chronic care management programs were designed to target adults with diabetes, chronic obstructive pulmonary disease (COPD), and hypertension. These programs provide continuous care for patients (Namazi et al., 2021). Namazi et al. (2021) noted that chronic care management programs differ in structure and delivery method but are aimed at improving the well-being of people affected by CHF. Such programs “tend to focus on the pattern and the level of service utilization and associated costs to the governments or health system, often by examining reductions or increases in avoidable emergency presentations and hospitalizations/readmissions and length of hospitalization” (Namazi et al., 2021, p. 98).

In healthcare reforms across the United States, patient-centered care has been the central idea. Patient-centered care provides opportunities for both patients and providers to take part in decision-making. Well-designed strategies that include patients in their healthcare decisions improve health literacy and improve health resource management. SCIPPS have been developed to create patient-centered policies and interventions for optimal patient care, especially for those with chronic conditions. SCIPPS targets patients with diabetes, CHF, and COPD (Namazi et al., 2021).

Congestive Heart Failure Among African American Adults

Compared to other ethnic or racial groups, African Americans have a disproportionately higher risk of developing chronic illnesses such as CVD, type 2 diabetes, and hypertension. CHF is a chronic condition that negatively affects the pumping power of the heart muscles. CHF is the stage at which the heart retains a lot of fluid, making it difficult to pump efficiently (Hamilton-Elliott et al., 2018). Individuals develop CHF when the heart is unable to pump enough blood to the whole body. This leads to blood and other fluids in important organs such as the lungs, liver, abdomen, and lower body (Hamilton-Elliott et al., 2018). CHF is life-threatening and results in changes in health.

According to Athilingam et al. (2019), CHF remains one of the leading causes of death among adults in the United States. Generally, over 85.6 million Americans experience different forms of CVD. CVD involves conditions that affect the heart and blood vessels, such as stroke, arrhythmias, and CHF. Black Americans comprise about 13.3% of the U.S. population but are at 3 times greater risk of developing CHF and other CVD conditions as compared to other ethnic groups. Acharya et al. (2019) argued that CHF originates from atherosclerosis and is the most common heart condition among African American adults. For most racial and ethnic groups, including Hispanics, non-Hispanic Whites, and African Americans, it is the leading cause of mortality. Black Americans have a 3 times greater risk of stroke than non-Hispanic Whites, and CHF prevalence was among the highest worldwide.

Factors causing disparities in disease risk in the United States are multifactorial. “Differential health care access and quality, environmental or neighborhood influences, persistent racial discrimination, health behaviors such as diet, smoking, SES, and genetic variation have been hypothesized as contributors to African American CVD risk” (Athilingam et al., 2019 p. 45). Athilingam et al. (2019) suggested that to reduce the disease risk among African Americans, there is a need to assess the knowledge and attitude towards CHF. Previous research on CVD and CHF in the United States focused on African Americans living in the southern states. Therefore, the results were limited as they left out unique characteristics of other regional populations. Factors such as the lifestyle and culture of a given region give an outline of how CHF affects a particular population (Acharya et al., 2019). A more precise targeting of nutrition and lifestyle-related programs can be made possible by regionally specific qualitative insights into African Americans' understanding of CVD risk factors. According to Acharya et al. (2019), dietary interventions based on the needs of African Americans from the South are not relevant to all African Americans. The differences in diet and health behaviors among African Americans are caused by factors such as SES, geographic origin, food accessibility, and life experiences.

Despite comprising only 4.9% of the Arizona population, African Americans had the highest number of adult patients with CHF (Athilingam et al., 2019). According to data from the Arizona Department of Health Services, African Americans had a disease risk of 42% higher than the state average. In Arizona, African Americans recorded a high number of deaths from CHF (Athilingam et al., 2019). Furthermore, African Americans had a high mortality rate due to stroke as compared to other groups. Porumb et al. (2020) argued that measures to address disease risk among African Americans should start by identifying sources of health disparities and assessing the health resources that communities and groups can access.

Chronic Heart Failure Among African American Adults

It is anticipated that CHF prevalence will rise as the American population ages. CHF is the primary cause of death in people 65 years of age and beyond, putting those who have it at a high risk of decompensation (Tillman et al., 2019). Over 1 million patients in the United States are hospitalized every year with CHF complications, which account for $30 billion in yearly medical costs. Furthermore, hospitalization due to AHF signals a change in the progression of HF and worsened prognosis, with 60- to 90-day postdischarge mortality rates of ~9% and rehospitalization rates of ~30% (Tillman et al., 2019). Among minority groups, CHF has emerged as a major health crisis for the aging population.

Rates of CHF vary significantly depending on race and ethnicity, with African Americans reporting the most significant number of cases. Ejim (2019) suggested that African Americans were at a high risk of developing CHF as compared to other racial/ethnic groups. African Americans also had a high number of CHF cases that were not initially associated with myocardial infarction. Furthermore, African American CHF patients had higher rates of modifiable risk factors and rehospitalization. According to Bakitas et al. (2020), racial disparities in CHF risk factors were linked to different factors such as higher intake of salt and calories, lower SES, and higher rates of hypertension and diabetes mellitus. African Americans have been left out of many CHF trials, which are essential studies to understand the impact of race on risk factors and clinical outcomes (Ejim, 2019).

Van Nuys et al. (2018) noted that SES was the most significant factor that contributed to the high rate of stroke and CHF among African Americans. CHF risk factors start early among African Americans.

> It is vital that we start preventing disparities by reaching children and young adults with education about the importance of a healthy lifestyle for maintaining health. Young adulthood is a time when many people drop out of the healthcare system. Suppose there is no safety net of healthcare available that emphasizes preventive care. In that case, these disparities in the onset of the risk factors are likely to persist. (Van Nuys et al., 2018, p. 41)

Over 14% of African American children experience high blood pressure as compared to 8% of White children. Tillman et al. (2019) argued that having high blood pressure in youth increases the chances of individuals suffering from elevated blood pressure. Tillman et al. further stated that having high blood pressure that persists into older age is more prevalent in Black Americans as compared to other races. High blood pressure among African American adults contributes to a high number of CHF and stroke cases.

McGrath et al. (2020) found high obesity rates among both African American adults and children. Twenty percent of African American children aged between 2 and 19 years were obese. Furthermore, 58% of African women and 38% of men were obese (McGrath et al., 2020). Obesity increases the risk of developing CHF. Cultural values presented challenges in minimizing obesity and CHF among Black Americans. Bakitas et al. (2020) asserted that many Black Americans preferred large body sizes, especially for women. The acceptance of awareness of obesity and the desire to participate in weight management programs was complicated by these cultural biases among African Americans. Furthermore, socioeconomic resources impacted education, diet, and physical activity (Bakitas et al., 2020). About 26% of African Americans were living in poverty across the United States. These factors made it difficult for African Americans to address chronic disease.

Stockdill et al. (2020) suggested that another source of disparities in CHF is unique sources of stress. African Americans experienced stress from persistent economic hardships and concerns regarding their health. Stockdill et al. (2020) described public health initiatives that can reduce CHF by reducing nonnutritious foods, menu labeling, providing incentives for food stores, creating safe spaces for physical activity, and maintaining smoke-free restaurants and public spaces. African American adults were at a higher risk of CHF because of high blood pressure and diabetes. According to McGrath et al. (2020), diabetes and blood pressure were more common among African Americans than any other ethnic group. Both diseases affect how an individual's heart functions. Low levels of nitric oxide relax blood vessels, hence also causing CHF.

The most common cause of CHF is blood pressure. High blood pressure has affected African Americans more than any other group. High blood pressure causes much damage to vital organs such as the heart and kidneys. According to Stockdill et al. (2020), diabetes accounted for the high number of CHF cases among African American adults. In the African American community, diabetes has been termed an epidemic, especially for women. Due to a lack of proper management, diabetes has been rampant in the African American community and damages important organs such as the heart. Porumb et al. (2020) found that African Americans experienced a high number of CHF due to delays in seeking treatment and reduced disease awareness. The percentage of African Americans receiving a CHF diagnosis is expected to increase by about 30% from 2012 to 2030, according to the American Heart Association. In general, it is anticipated that nearly 9 million people will receive a CHF diagnosis by 2030 (Van Nuys et al., 2018).

Modifiable Risk Factors

High rates of CHF are associated with modifiable risk factors in the African American community, including hypertension, left ventricular hypertrophy, ischemic heart disease, and smoking. In contrast to White Americans, who are more likely to have ischemic cardiomyopathy, African Americans are more likely to have nonischemic cardiomyopathy. McKay et al. (2019) argued that obesity, diabetes, hypertension, and kidney disease were common among African Americans suffering from CHF; however, hypertension was the leading cause. African Americans experienced hypertension more frequently as compared to other populations across the world. Due to a lack of access to quality healthcare services, African Americans have poor control of hypertension, which causes damage to vital organs in the body (McKay et al., 2019). Seah et al. (2019) stated that many CHF cases reported by African American adults were caused by poor control of hypertension. However, regardless of the efforts to control blood pressure and other risk factors, African Americans remained at higher risk of CHF.

Neurohormonal Imbalances and Endothelial Dysfunction

All populations were likely to develop heart failure due to pathophysiologic abnormalities in the renin-angiotensin-aldosterone and adrenergic axes. In collaboration with other risk factors, African Americans were experiencing a healthcare crisis with the growing number of CHF in the community (McGrath et al., 2020). Among African Americans, impaired endothelial function, as evidenced by impaired digital and brachial artery vasomotion, was ubiquitous. According to McGrath et al. (2020), lower levels of elasticity in arteries among African Americans were due to a rise in oxidative stress, reduced availability of nitric oxide, extreme vasoconstrictor response, and lack of responsiveness to nitric oxide.

Socioeconomic Factors and Quality of Care

In the US healthcare system, CHF patients, particularly African Americans, experienced high rates of hospital readmission. As highlighted by Laster, Shen, and Norris (2018), lower income was a significant predictor of hospital readmission in African American patients with CHF. Socioeconomic factors led to delays in seeking quality treatment, thus worsening the CHF symptoms. In line with this finding, Coughlin et al. (2021) argued that the poor SES of African Americans led to limited disease awareness, poor access to healthcare services, and noncompliance with follow-up appointments, which worsened the damage of CHF. African American adults have reported discrimination by health providers in the US and poor medications for those suffering from high blood pressure (Laster et al., 2018). These conditions interfered with optimal blood pressure control. Ejim (2019) suggested that to control CHF in the African American community, healthcare providers should begin by identifying and eliminating the barriers to attaining quality treatment.

Treatment of Heart Failure in African Americans

There have been advancements in the treatment of CHF, but it remains a killer disease across the US and the world at large. Although all races are affected, CHF primarily affects racial groups with lower income levels. “CHF burden is further amplified by the fact that the beneficial impact of new treatment advances has been limited by slow penetration of evidence-based therapy into the broader community setting of clinical practice. This is also especially evident in certain special populations. Thus, the health and economic burden of HF continues to grow and disproportionately affects certain underserved populations" (Cornelius et al., 2022, p. 29). McGrath et al. (2020) argued that CHF starts at an early stage and affects the left ventricle, which progresses into a more severe disease. The clinical result is increased morbidity. McGrath et al. (2020) noted that the burden of CHF in the African American community was due to the interplay of several factors, which include diabetes, hypertension, adverse socioeconomics, obesity, genetics, and variances in physiologic responses to cardiovascular diseases.

Etiology

As suggested by Nayak et al. (2020), CHF in Black Americans has mainly been linked to a nonischemic etiology of left ventricular dysfunction. Diabetes-related diseases and dilated cardiomyopathies are common among African Americans. Over 30% of African Americans are affected by hypertension as compared to 10% of Whites (Nayak et al., 2020). According to Cornelius et al. (2022), hypertension was regarded as the etiology of CHF in the majority of African American adults. African Americans have one of the highest rates of hypertension in the world. About 75% of African American adults aged 60 and older with CHF had hypertension, which was three times more common in African Americans than it was in Whites. (Nayak et al., 2020). African American adults experienced Left ventricular hypertrophy frequently. Patterns of hypertrophy were linked to increased mortality and morbidity (Laster et al., 2018). African Americans had a unique pathophysiology for hypertension because they tended to have higher salt sensitivity, relatively low renin activity, and probably lower levels of nitric oxide (NO) generation. (Laster et al., 2018). Hypertension was a more severe disease among African Americans than in Whites. In addition to higher rates of hypertension, Bauersachs et al. (2019) Black Americans were 1.6 times more likely to suffer from diabetes as compared to Whites. The high prevalence of hypertension and diabetes explains the excess disease burden of CHF among African Americans. Therefore, it is important to pay more attention to the recognition and early treatment of diabetes and hypertension.

Pathophysiology of Heart Failure in African Americans

In the beginning of CHF, neurohormonal activation remained the most important pathophysiologic consideration. According to Bauersachs et al. (2019), African Americans, as compared to Whites, had less responsiveness to certain vasodilators and more exaggerated vasoconstrictor responses, which caused high blood pressure. Bauersachs et al. (2019) further stated that abnormal endothelial function resulted in abnormal blood pressure responses. High levels of endothelial dysfunction were caused by reduced nitric oxide (NO). Abnormal production of NO also causes adverse ventricular remodeling (Nayak et al., 2020). Nayak et al. (2020) found racial differences between White and Black Americans in the imbalance of NO production and CHF. The differences in CHF between the Whites and Blacks were due to low NO production among African Americans. The production of NO provides a new understanding of the pathophysiology of CHF, and doctors target it for quality interventions. Nitric oxide regulates blood pressure and vascular tone and inhibits the proliferation of vascular smooth muscle cells (McKay et al., 2019). McKay et al. (2019) found that African Americans have increased oxidative stress and attenuated responsiveness, which increases their chances of experiencing CHF.

Genetic Polymorphisms

Race cannot be used as a substitute for genetics because it has multiple dimensions and is based on a sociopolitical classification. This is the case with African Americans, who are a mixed-race population. According to Gilstrap et al. (2019), genetic variations can be used to explain the racial disparities in CHF across the U.S. Different at-risk factors have been linked to increased development of CVD and reduced therapeutic responsiveness among African Americans. Glynn et al. (2019) postulated that a dual-receptor polymorphism in the β_1- and α-adrenergic receptors was common among African Americans, which was linked to increased CHF and generally poor health. A mutation of the β3-subunit of the G_i-type protein was also high among African Americans and correlated with hypertension. Different single-nucleotide polymorphisms (SNPs) have been diagnosed in African Americans, which play a key role in the development of left ventricular dysfunction and CHF (Gilstrap et al., 2019). According to Gilstrap et al. (2019), polymorphisms of specific genes contributed to reduced responsiveness of African Americans to ACE inhibitors. Furthermore, polymorphisms that affect β-receptors, endothelin, and natriuretic peptides led to progressive left ventricular dysfunction among Black Americans. Among these populations, there was a high production of aldosterone synthase, which caused heart failure. These findings indicated that genetic variants were disproportionately distributed across ethnic groups, thus exposing African Americans to chronic diseases.

According to Laster et al. (2018), reduced access to healthcare services and lower SES contributed to the increased disease burden of CHF in African American adults. SES is determined by income, education level, employment, and housing. Healthcare professionals across the US are more concerned with disparities in access to quality healthcare services. Disparities in the US healthcare system are evident in the management of CHF among African Americans. CHF was linked to high rates of hospitalization. Glynn et al. (2019) found income to be a significant factor in increased hospitalization readmission. A concerted effort to reduce healthcare inequities may be supported by certain discrepancies in treatment outcomes that differences in utilization of healthcare can explain. However, as has been seen in other cardiovascular diseases, SES may not fully account for disparities in clinical outcomes. (Glynn et al., 2019). Differences in treatment outcomes can also be explained by factors such as failure to identify CHF symptoms, noncompliance with doctor instructions, and reduced access to healthcare services. The approaches to developing culturally competent CHF treatment across the US should incorporate clear communication between patients and caregivers, more accessible access to healthcare services, and the use of performance measures.

Nutrition and Dietary Management Experiences of African American Patients Who Suffer From Congestive Heart Failure

Ejim (2019) stated that the leading significant cause of death and disability in the US was heart disease. One of the leading contributors to morbidity and mortality from heart disease, more so than any other risk factor, was a poor diet. Other troubling factors, as noted by Laster et al. (2018), included racial and socioeconomic disparities in diet quality. According to Ejim (2019), racial disparities were a significant topic in the US's healthcare system, and a more coordinated effort was required to address the barriers to a better dietary practice. Regardless of significant progress in the past years, there has been an increase in the CHF mortality rate. Nwokochah (2021) attributed the increase in CHF mortality to an increased prevalence of obesity, which was a direct result of poor diet. Across the US, a large percentage of CHF-related deaths and disability cases were attributed to poor diet, thus making it a leading cause of CHF within minority groups. Differences in diet quality were based on race, SES, and ethnicity. According to Nwokochah (2021), disparities related to the quality of diet caused a high burden of CHF in underserved populations such as African Americans.

Generally, the CHF prevalence rate across the US stood at 48% (Laster et al., 2018). However, of all the populations, African Americans experienced a higher burden of CHF and poor outcomes. Heart failure, stroke, hypertension, and coronary heart disease (CHD) affected individuals with low SES. African Americans had more than one socioenvironmental factor linked to a high CHF burden (Nayak et al., 2020). The American Heart Association (AHA) used seven main health behaviors to define ideal cardiovascular health, which include diet, smoking, body mass index, cholesterol, glucose control, physical activity, and blood pressure (Nayak et al., 2020). In people with lower income levels, the prevalence of ideal cardiovascular function was lower than in individuals with higher SES. Furthermore, most individuals in the US had lower healthy diet scores, which increased the chances of developing obesity (Stockdill et al., 2020).

Iwegbu (2020) asserted that several factors including income, education level, race, and food assistance programs in the country, caused disparities in the quality of diet. In recent years, the number of African American adults with poor diet quality was 8% higher than that of Whites. Glynn et al. (2019) also found that individuals with high SES had a higher-quality diet than those with low and middle SES. Consistent improvements in diet quality over time were only observed with high SES. Similarly, Cornelius et al. (2022) reported that individuals from low-income families had poor diet quality. Based on data from the National Health and Nutrition Examination Survey, Black Americans had a poor diet across the SES groups and had lower scores for fruits and vegetables, seafood and plant proteins, and empty calories (Cornelius et al., 2022). African American adults consumed many calories from added sugars, solid fats, and alcohol and consumed fewer fruits and vegetables, which reduced the quality of their diet.

Although different reforms have been put in place to improve diet quality in the US, African Americans, due to low SES, have mainly been affected by poor diet. According to McGrath et al. (2020), this was an important area that required crucial interventions because of the relationship that existed between poor diet and increased risk of CHF. McGrath et al. (2020) suggested that a heart-healthy diet was essential to the treatment of CHF among African Americans. The American College of Cardiology and the Department of Health and Human Services advised people to consume a lot of fruits, seeds, vegetables, nuts, and legumes to improve heart health (McKay et al., 2019). Van

Nuys et al. (2018) reported an inverse dose-response relationship between diet quality and CHF morbidity and mortality. An increase in diet quality resulted in a decrease in cardiovascular mortality and total mortality. According to Laster et al. (2018), improving diet quality resulted in cardiovascular benefits. In countries such as Spain, adhering to the Mediterranean diet has been found to reduce risks of CHF and other heart-related diseases. "The Mediterranean diet with extra virgin olive oil and the Mediterranean diet with mixed nuts lowered the CVD event rate from 11.2 per 1000 person-years (95% CI, 9.2–13.5) to 8.1 per 1000 person-years (95% CI, 6.6–9.9) and 8.0 per 1000 person-years (95% CI, 6.4–9.9), respectively" (Laster et al., 2018, p. 411).

Nutrition and Dietary Challenges Facing African American Patients Suffering From Congestive Heart Failure

African Americans have the highest incidence and prevalence of CHF and the worst results of any ethnic group living in the United States, according to research on the condition's prevalence rates. While it was projected that by 2030, heart failure would have affected at least 3% of the American population, it was expected that at least 3.6% of African Americans would experience the highest-burden and prevalence rates as compared to 3% of the overall population (Nayak et al., 2020). Examining the reasons why African Americans were at an increased risk of developing heart failure, Nayak et al. (2020) pointed out several social determinants of health that increased an individual's susceptibility to heart failure. Among the factors are residential and neighborhood environment, implicit bias, and low levels of education.

Researchers have demonstrated that environmental and neighborhood conditions in which individuals reside are likely to increase their susceptibility to heart failure and cardiovascular conditions (Bai et al., 2019; Nayak et al., 2020). Bai et al. (2019) asserted that the socioeconomic divide witnessed in the United States has cultivated the continued economic inequality witnessed in the United States, evidenced by the state of living conditions and residential environments resided by marginalized communities. Al-Kindi et al. (2020) reiterated that individuals who were racially segregated and lived in impoverished neighborhoods had higher chances of developing heart failure and cardiovascular diseases. Studying a sample of 27 078 White and Black communities in the Southern United States, Akwo et al. (2018) revealed that for every increase in poverty and deprivation levels, there was a corresponding 12% rise in the risks of heart failure.

Similar findings were reported by Morris et al. (2019), who claimed that a high prevalence of heart failure symptoms and characteristics was similarly connected with residing in locations that lacked access to nutritious meals. While more research was required to explicitly explain how poverty and deprivation levels predisposed individuals to heart failure and associated conditions, Howell et al. (2019) and Wang et al. (2019) argued that poor neighborhoods lacked green spaces and practice grounds, something that limited the kinds of physical activities that these individuals engaged in thus many led sedentary lifestyles exposing them to the likelihood of developing cardiovascular diseases. Additionally, compared to high-end neighborhoods, low-income areas lack supermarkets and have limited specialty food stores, which means limited access to fresh and healthy foods.

Besides deprived neighborhoods, increased cases of implicit bias have also increased the risks of developing congestive heart conditions. Previous scholars like Schnierle et al. (2019) reported that implicit bias was likely to affect how medical and clinical officers made their judgments and clinical decisions. For instance, Lo et al. (2018) analyzed longitudinal data from 2001 to 2010 and revealed that due to implicit bias, many people from marginalized communities were not treated in hospitals despite showing apparent symptoms of heart failure or associated cardiovascular diseases. Lo et al. (2018) argued that due to implicit bias, Latinos and Blacks were 17% and 9% less likely to be treated for heart failure, let alone being admitted for treatment.

Agreeing with Lo et al. (2018), Eberly et al. (2019) analyzed data from a sample of 104,835 patients, revealing that Black patients, compared to their White counterparts, had limited and disparate access to cardiologists tasked with treating heart conditions. Breathett's et al. (2018) hypothesis that Black patients were less likely to have a cardiologist check them throughout their stay in the ICU provided additional support for these findings. Despite published evidence that patients whom cardiologists examined showed improved chances of survival (Breathett et al., 2018), Breathett et al. (2019) explained that Black patients were seen as being sicker and less likely to survive, hence the reason why the majority were denied heart transplants for their conditions. The bias in clinical officers meant that Black patients with CVD were rarely treated, and if treated, the treatment was substandard.

The above-mentioned and discussed social determinant factors were associated with the nutritional and dietary challenges encountered by African Americans diagnosed with CHF. While the preceding discussion has not examined how implicit bias promotes the nutritional and dietary challenges faced by African Americans, it is arguable that due to bias, areas, and neighborhoods resided by African Americans were less likely to be supplied with fresh, healthy foods. Analyzing data from 14 focus groups of African Americans residing in Arizona, Ananian et al. (2018) discussed that, unlike their White counterparts, African Americans were at an increased risk of developing stroke, diabetes, hypertension, and cardiovascular conditions.

Supporting these assertions, Ananian et al. (2018) reported poor SES, low levels of education, and limited access to healthy foods as some of the reasons why more African Americans than Whites were diagnosed with heart conditions and other severe forms of cardiovascular conditions. Aggarwal et al. (2018) agreed with the assertions of Ananian et al. (2018), noting that when it comes to treating heart failure and associated conditions, medical practitioners rarely examine what would be the outcome of considering weight management, nutrition, mindfulness, exercises, and dietary composition of African Americans. The nutritional and dietary challenges experienced by African American patients suffering from CHF were discussed under the subthemes of low SES, unavailability of healthy food supplies, and limited nutritional knowledge.

Low Socioeconomic Status and Nutritional Challenges

Scholars agree that a high proportion of African Americans live in poor neighborhoods and suffer from low SES. Ananian et al. (2018) established that poor financial muscle characterized by low SES limited the dietary composition that African Americans could access and the types of nutrition available to them. Similar findings were also reported by Al-Kindi et al. (2020), who explained that the inability of African Americans and other marginalized communities to partake in healthy diets more frequently was due to their low SES.

Analyzing data collected from 81 participants in Baltimore City, Kolahdooz et al. (2018) established that many African Americans lived in lower-income neighborhoods and had limited access to different types of fresh and healthy foods when compared to their counterparts from high-income areas. Kolahdooz et al. (2018) explained that because of low income, many African Americans diagnosed with CHF had access to an unbalanced diet due to low intake of fruits, vegetables, and dairy products with high consumption of processed foods. Bai et al. (2019) reiterated that, due to low income, many African Americans had inadequate intake of fiber, calcium, and vitamins A and C.

Evidence of dietary challenges experienced by African Americans has been reported by Kris-Etherton et al. (2020). Conducting an extensive review of the literature on a variety of topics associated with dietary and nutritional challenges, Kris-Etherton et al. (2020) revealed that poor diet consumption by CHF patients was prevalent in low-income neighborhoods as compared to high-income neighborhoods. The prevalence of poor dietary intake was higher in the neighborhoods with Blacks than in areas with primarily White residents. Despite the existence of evidence that a healthy diet was critical in promoting cardiovascular health (Nayak et al., 2020), Kris-Etherton et al. (2020) showed that poor diet and intake of foods with low nutritional value exacerbated the negative impacts of CHF. Agreeing with Nayak et al. (2020), Kris-Etherton et al. (2020) established that low SES associated with African Americans affected their ability to access healthy foods. Sanjeev et al. (2018), in a study of 152 women, agreed with Kris-Etherton et al. (2020) that economic barriers resulted in many African Americans consuming unhealthy foods and foods lower in quality, exacerbating the impacts of CHF rather than alleviating the effects.

In addition to consuming foods with low nutritional value due to economic factors, Kris-Etherton et al. (2020) stated that financial challenges resulted in food insecurity, a significant challenge faced by African Americans. Kris-Etherton et al. (2020) discussed economic factors such as the level of income and food pricing dictating the availability of food and individual access to the food. Although there are many government guidelines, such as the Thrifty Food Plan (TFP), encouraging the provision of foods and meals at lower cost, the majority of African Americans still cannot afford such costs. Although TFP made it possible for people to access and purchase foods, Kris-Etherton et al. (2020) showed that the prices of significant foods with nutritional value as set by TFP were still higher than the market prices set in supermarkets and other food stores. As a result, even TFP prices being higher meant that many African Americans still had limited access to foods with nutritional value important for their CHF conditions.

Analyzing the preceding discussion, the lack of finances and economic instability faced by African Americans with congestive heart failure challenges their ability to follow dietary and nutritional routines as advised by nutritionists and health care professionals. Reiterating the results posted by Nayak et al. (2020), African Americans live in impoverished and low-income neighborhoods that negatively influenced their ability to access healthy fresh foods. Other scholars, including Kris-Etherton et al. (2020)

and Sanjeev et al. (2018), have asserted that living in impoverished areas meant that many supermarkets and food stores were less equipped with fresh and healthy foods because they could not afford such quality fresh foods needed for diet. Furthermore, Nayak et al. (2020) explained that compared to high-end neighborhoods, low-income neighborhoods lacked green spaces and environments for physical activities and lacked the necessary educational investment to educate and train African Americans on the value of maintaining diet and nutrition.

Poor Education and Nutritional Challenges Faced by African Americans With Congestive Heart Failure

Besides poor socioeconomic and financial problems hindering African American's access to quality diet and nutrition, lack of education or low levels of education has been associated with the nutritional challenges experienced by African Americans with CHF. Kris-Etherton et al. (2020) and Nayak et al. (2020) asserted that poor SES characterizing African Americans influenced their access to education. Nayak et al. (2020) explained that lack of finances meant that African Americans had limited access to dietary materials and nutritional books. Similarly, Kris-Etherton et al. (2020) described that poor SES limited African Americans' access to nutritional lectures, which is important for alleviating the impacts of CHF. However, failure by these groups to understand the value of nutrition due to low levels of education meant that this group only consumed foods not for nutritional value but for posterity. Belle (2018) asserted that frequent consumption of foods low in dietary fiber but high in fats and sugars predisposed them to obesity and diabetes, all of which point to increased prevalence of heart conditions among African Americans.

Education helps in improving the nutrition and dietary intake of African Americans with CHF. For instance, Kris-Etherton et al. (2020) asserted that patients diagnosed with CHF are required to maintain a healthy diet to prevent overworking the heart. As Sanjeev et al. (2018) illustrated, education is not only important in ensuring that patients with CHF not only adhere to the required diet but also inform themselves of the anticipated nutritional challenges and how to address them. From previous discussions, it was evident that African Americans had limited and unequal access to diet and foods rich in nutritional value. The inability to distinguish between foods rich in diet and nutrition has created a challenge that African Americans with CHF must overcome for them to continue being healthy. Overall, education is an essential factor in addressing the issues associated with nutrition and diet. With education, African Americans have the knowledge of what foods to consume and which not to consume for the sake of heart health.

In as much as education has been identified as critical regarding adherence to nutrition and diet by African Americans with CHF, the lack of such education and training presents a significant challenge. From the discussions above, the majority of Black Americans with CHF reside in neighborhoods characterized by low economic resources and low socio-economic income. As posted by the University of Iowa in 2018, many African Americans had limited access to education and, as such, are not aware of nutrition or whatever diet they need to protect themselves against CHF. Bell et al. (2020)

established that the low SES of many African Americans and their inability to access nutritional and dietary education is important in addressing and protecting individuals against CHF.

Culture as a Nutritional Challenge

African Americans attach value to the cultural meals or foods born out of cultural necessity and influence. According to Ling et al. (2020), many African Americans prefer soul foods, which they usually associate with history and social interactions, despite the possibility of the meals resulting in health problems. For instance, Belle (2018) asserted that the cultural foods valued by African Americans were usually rich in gravies with a lot of fatty meats that are firmly and typically associated with the development of heart conditions, including CHF. In as much as soul foods have been associated with health problems, African Americans have proved resistant to changing or preparing their soul foods in healthier ways to reduce gravies and fatty meats associated with health foods.

The impact of culture on nutrition and diet for African Americans with CHF revealed that the cherished soul meals posed a challenge to this marginalized community sticking to healthy dietary foods. As Lynch et al. (2019) and Whitaker et al. (2018) explained, the social life and interactions of African Americans included consuming soul food quite often, something that also explained the high rate of heart failure and cardiovascular heart disease. Exploring the health effects of the African American food diet, Belle (2018) and Ling et al. (2020) asserted that consumption of sugary fruit drinks, lots of cheese, sweets, baked macaroni, and barbecued ribs increased the incidence rates of this group developing diabetes, heart diseases, hypertension, and cancer compared to their White counterparts.

As illustrated by Belle (2018), African Americans' value of traditional or cultural soul food has resulted in many neglecting the dietary and nutritional advice given by nutritionists. Swierad et al. (2017) qualitatively studied a group of 25 African Americans and showed that ethnic identity and mainstream culture influenced the adherence of this group to diet. As per Swierad et al. (2017), the culture of African Americans dictates their health behaviors and the kinds of physical activity in which they engage. Brown et al. (2019) also investigated the cultural factors that influenced diet among African Americans and African Caribbean in the northeastern U. S. Interviewing 15 participants and analyzing the data from four to five focus groups, Brown et al. (2019) found that many African Americans both in the Caribbean and the USA preferred their diet to that prescribed by nutritionists. Noteworthy, the diversity in diet meant that more needed to be done to ensure that African Americans with CHF adhered to the diet and maintained the nutrition that would facilitate their getting better.

Culture and diversity play a central role in the life and social interaction of many African Americans. As illustrated in the discussions above, culture is a significant deterrence to many African Americans adhering to nutrition and diet. For instance, Belle (2019) presented that African Americans' value for their cultural soul food hindered their adherence to diet and nutrition. The challenge here was that even with the associated health implications of soul foods, African Americans found it difficult to restrict themselves to the diet that helped with their CHF. However, to overcome the challenge of culture on nutrition and diet, Belle (2018) suggested that African Americans be educated about the negative impacts of consuming soul food and the health benefits of sticking with the diet and the required nutrition.

Racial and Age Differences in Severity and Epidemiology of Congestive Heart Failure

Beginning with its identification by the World Health Organization as an emerging condition more than two decades ago, research on the epidemiology of CHF began (Groenewegen et al., 2020). While it may sound easy to categorize and ascertain heart failure, as observed in many research articles, the epidemiological categorization and research have been challenging due to the heterogeneity of heart failure as a disease (Groenewegen et al., 2020). Globally, at least 64.3 million people have been diagnosed with heart failure (CDC, 2020), with the population of the affected individuals in developed countries accounting for between 1 and 2% of the adults diagnosed with heart failure. In the United States, for instance, Benjamin et al. (2018) presented that the prevalence of heart failure in the United States was estimated to be at 2.5%, with that of Germany estimated to be at 4% for both genders. Examining the prevalence in the United Kingdom, Conrad et al. (2018) established the prevalence at 1.6% according to data from the UK Clinical Practice Research Datalink, which contains 4 million people.

Examining heart failure in terms of age, Glovaci et al. (2019) reported that heart failure in individuals who were in middle age was estimated to be between 1 to 2%, even though the number rises as the population gets older with the prevalence being reported at 2 to 3% for persons aged 65 years and 5 to 10% for individuals above 75 years. These statistics were corroborated by Groenewegen et al. (2020), who agreed that the majority of the affected individuals were of the older generation aged 60 years and above, even though the tide is changing, and many young people are currently being reported to develop heart failure. In their study, Groenewegen et al. (2020) reported that change in lifestyle among the young population has predisposed them to conditions suitable for developing CHF. For instance, Gilstrap et al. (2019) asserted that, compared to the older population, young people were consuming more fatty foods and exercising less, resulting in many becoming obese, a prerequisite for heart failure. Ødegaard et al. (2020) discussed that the younger population preferred and was inclined to consume unhealthy foods and their nonengagement in physical exercises.

According to the epidemiology of CHF in terms of race, the marginalized population in the US reported a heavier burden of the illness than the country's overall White population (Nayak et al., 2020). Examining the racial differences in the epidemiology of CHF, Nayak et al. (2020) revealed that heart failure was the leading cause of death for many hospitalized individuals in the United States, with many Black patients at the highest risk of CHF-related deaths. These findings had been observed in previous research conducted by Ziaeian et al. (2018), who had found the number of Black men and women with heart failure to be almost twice that of members of the White population. Even though Nayak et al. (2020) and Ziaeian et al. (2018) reported an improvement in the clinical outcomes of heart failure, Glovaci et al. (2019) maintained that the risk was still high among members of the Black population and that the disparity in prevalence by race was yet to change.

Evidence of racial differences in heart failure infection was also reported by Tee Lu et al. (2017). As per Tee Lu et al. (2017), race and ethnicity presented a lens through which a clear understanding of the infection rates and severity of heart failure could be understood. In the systematic review of the literature, Tee Lu et al. (2017) identified Whites, Hispanics, Chinese Americans, and African Americans as racial groups that have significantly higher risks of developing and being hospitalized for heart failure. Explaining this variation, Tee Lu et al. (2017) and Hao et al. (2019) stated that the African American population was characterized by high levels of poverty, low income, and high intake of calorie foods, which increased their risk of developing CHF. Findings like those of Tee Lu et al. (2017) were also reported by Tsao et al. (2018), who studied a sample of individuals aged 60 years and above. Using a sample from three different phases totaling 15,217, Tsao et al. (2018) found that African Americans and Hispanics reported higher rates of heart failure than other ethnic groups, with the predominantly White population reporting minimal hospitalizations and death rates due to CHF.

As discussed by Nayak et al. (2020), despite an improvement in clinical diagnosis and treatment of heart failure, racial differences in terms of epidemiology were still prevalent among the ethnic groups residing in the United States. Agreeing with this, Glynn et al. (2019), in earlier research, established that the risks of being diagnosed with heart failure among the aging population were with Black men and women being identified as having as high as 20 times the incidence rates of heart failure compared to their White counterparts. In the systematic review of 118 CHF clinical trials, Tahhan et al. (2018) reported that of the clinical trials that included race and ethnicity as a factor in

HF research, at least more than half of the clinical trials found marginalized communities, especially African Americans to be at an increased risk of developing heart failure than any other ethnic minority within the United States. Studying a much larger population that included 12,417 participants aged 45 years and below, Pandey et al. (2018) differed from the results posted by researchers in the preceding discussion. For Pandey et al. (2018), the analysis of the data yielded that the lifetime risk for heart failure between Blacks and non-blacks was high in non-blacks (25.9% to 22.4%), similar to the lifetime risk of developing or being diagnosed with heart failure with reduced ejection fraction (HFrEF) (11.2% to 7.7%).

The difference in outcome, as observed by Pandey et al. (2018), and the continued decrease in CHF among the American population, as discussed by Nayak et al. (2020), Tee Lu et al. (2017) and Glynn et al. (2019) pointed towards improved clinical diagnosis and treatment of heart failure and associated conditions. Tee Lu et al. (2017) and Glynn et al. (2018) argued that extensive research on heart failure and associated conditions revealed an improvement in the management of hypertension, cholesterol, obesity, and diabetes. Moreover, Glynn et al. (2018) stated that increased research and availability of different medications and decreased rates of smoking have decreased the prevalence of heart failure among the older population. Nayak et al. (2020) corroborated these assertions, pointing out that extensive research on CHF has yielded positive results with medication and the general population embracing exercise and a healthy diet.

Racial Disparity and Severity of Congestive Heart Failure

The severity of CHF has followed a trajectory that is comparable to the epidemiology of CHF in the general population, with older people from marginalized ethnic groups succumbing to the illness. For instance, Glynn et al. (2019) on the mortality due to cardiovascular diseases revealed that despite the decrease in mortality due to CVD, Black men and women reported higher mortality rates than their White counterparts. Accordingly, African Americans were 20 times more likely to succumb to heart failure conditions than their White counterparts. Similar findings were reported by Eberly et al. (2019), who studied the risks of readmission due to heart failure among the general population within a 30-day trial period. The results by Eberly et al. (2019) were such that a significant percentage of Blacks and Latinos did not require cardiology services than White patients. Eberly and colleagues explained this observation, noting that the readmission rates of Blacks and Latinos were higher than in the White population, and if they were admitted, they received limited attention from cardiologists. Failure to receive treatment upon admission and readmission of ethnic minority groups, especially African Americans, increased the severity of heart failure (Eberly et al., 2019; Downing et al., 2018; Roger, 2021).

Overall, studying CHF through the lenses of ethnic and racial differences has proved effective (Tee Lu et al., 2017). Through racial differences, scholars have examined the development of the condition through different known factors, including lifestyle, access to medication, and environment (Glynn et al., 2019). With the discussion above, it is evident that compared to the general White population, which is the majority of the American population, the severity of CHF was predominant among the African American population, who, despite having high rates of admission, were rarely attended to increasing the risks of death due to heart failure (Eberly et al., 2019). Similarly, African Americans have been reported to be at an increased risk of HF due to low SES and failure to access medical services.

Food Assistance Programs for Underserved Populations

SNAP, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and school lunch programs are federal food assistance programs that increase users' ability to buy food. SNAP program is provided for individuals with an income of less than 130% of the federal poverty threshold. Coughlin et al. (2021) suggested that more fruits, grains, and vegetables be included in the WIC program, significantly for African Americans because they are affected by hypertension. Stockdill et al. (2020) found that individuals who use SNAP and those who do not use SNAP had almost similar purchasing behaviors; however, SNAP users tend to buy more red meat, sugar-sweetened beverages, and pizza. Low-income individuals, the majority of whom are African Americans, base their purchasing on the price of food and hence tend to buy energy-dense foods because they cost less. As a result, interventions that boost purchasing power for healthy foods and decrease the affordability of harmful foods are required to improve the diets of marginalized people.

Government interventions to improve diets that are based on socioeconomic factors had the greatest impact on the health of African Americans. McKay et al. (2019)

identified effective strategies to improve diet quality for African Americans, which include:

> (1) the nutrition environment, including the availability of supermarkets and other places where healthy, affordable food can be purchased; (2) affordability of healthy foods, including economic incentives (e.g., subsidies for healthy foods and taxes on unhealthy foods); (3) the food environment in public places, such as schools, universities, workplaces, or healthcare settings, including availability and access to healthy foods, education, and incentives for healthy eating; (4) marketing of foods and beverages, including standards for advertising to children and vulnerable populations; and (5) food labeling, including mandating the nutrition facts panel and other information that must appear on food packages to inform consumers and to influence industry product formulations. (Jahmunah et al. 2019, p. 101)

Summary

I explored the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. It has been established that Over 30% of global deaths have been linked to CVD. One condition that significantly contributes to CVD is CHF, which is a leading cause of death in older people in the US and other developed countries. Van Nuys et al. (2018) noted that SES was the most significant factor that contributed to the high rate of stroke and CHF among African Americans. Acharya et al. (2019) argued that the growing middle and upper-class African Americans, regardless of their improved SES, still experienced poor health conditions. Due to discrimination and racism, African Americans did not have adequate access to quality treatment for CHF. SES was the most significant factor that contributed to the high rate of stroke and CHF among African Americans. Poor diet quality was one of the biggest causes of morbidity and mortality related to heart disease than any other risk factor. The research methodology is provided in the next chapter. Chapter 3 provides a detailed explanation of the research design and methodology.

Chapter 3: Research Method

Over 5.7 million Americans suffer from CHF, which has resulted in more than 1 million hospital admissions each year in the country (Chamberlain et al., 2018). African Americans suffer a disproportionately higher incidence of CHF as compared with other races (Ejim, 2019). The problem addressed in this study was the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. The purpose of this study was to explore the nutrition and dietary management experiences of Black American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. In this chapter, the methodology for the study is discussed, which includes a description of the research methodology as well as the research design, the population and sample selection, research materials, data collection, trustworthiness, data analysis procedures, ethical considerations, and limitations.

Research Design

This study used a qualitative phenomenological methodology. In qualitative research, an individual's perception of their experiences is used to construct knowledge (Flick, 2019). When a researcher is interested in the experiences and views of individuals, a qualitative approach is preferred. The study was ideal for a qualitative methodology because I sought individual perspectives rather than investigating correlations between factors. Because there is currently a deficit in the literature about the experiences of African American patients who suffer from CHF in Oklahoma and the impact of nutrition and dietary therapies on CHF, a qualitative technique also contributed to the body of knowledge. Hammarberg et al. (2017) noted that qualitative research is appropriate when specific variables cannot be determined. Because they frequently examine phenomena that cannot be readily defined or explained and can be utilized to provide detailed information describing an event in its natural setting, qualitative studies frequently raise *how* and *why* questions (Flick, 2019).

This study used a phenomenological research design. The best research strategy for this study was a phenomenological one because it enabled me to carefully investigate participants' lived experiences and the analysis of data collected from participants (Flick, 2019). In the tradition of phenomenological research, subjects' experiences or life worlds are carefully described and analyzed, as well as the meaning and interpretation that subjects assign to those experiences (Flick, 2019). When the researcher wants to understand how the participants experienced a specific occurrence through an examination of their lived experiences, phenomenology is the most relevant for the study (Flick, 2019). Because ethnographers immerse themselves in a society and investigate the themes that emerge, ethnography was not suited for this subject. The ethnographer is directed by what organically occurs from their observations rather than trying to explain a specific phenomenon by examining the themes that emerge (Flick, 2019). A narrative approach was not appropriate for the study, as a researcher using a narrative approach seeks to weave together a sequence of events rather than studying a specific phenomenon (Flick, 2019). A case study involves using distinct cases in order to derive an understanding of a larger organization or event (Flick, 2019). This was not appropriate for the current study, in which I sought to describe the phenomenon as viewed by participants.

Role of the Researcher

In qualitative research, the role of the researcher is primarily to serve as the research instrument. This meant that I collected and analyzed the data in the study (Flick, 2019). Data collection occurred via semistructured interviews using a researcher-designed interview protocol. I also performed thematic analysis using Braun and Clark's (2006) thematic analysis approach. In order to reduce the risk of bias, I used bracketing to set aside their preconceived notions that impacted the data collection or analysis in this study. Direct participant quotes were used to support all claims made during data analysis (Patton, 2002).

Methodology

Participant Selection Logic

Purposive sampling was used in this study. For the current study, purposeful sampling was used when I wanted to concentrate on particular characteristics of the research population, specifically African American patients with CHF in Oklahoma. Purposive sampling entails selecting people with qualities compatible with the needs of the research (Flick, 2019). Purposive sampling is beneficial because it enables a researcher to select participants who can supply information pertinent to answering the research questions due to their abilities and qualities that match the subject (Flick, 2019).

Ten to 12 participants were selected to participate in the study. Participants were eligible to participate in the study if they met the following criteria.

- self-identify as African American,
- have been diagnosed with CHF by a doctor, and
- currently reside in the state of Oklahoma.

Each criterion was selected in order to support the overall purpose of this study, which was to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. Participants who did not meet the above criteria were not eligible to participate in the study. Participants were screened for eligibility prior to conducting each interview. Participants who did not meet the above criteria were thanked for their time and dismissed.

Instrumentation

Instrumentation consisted of a researcher-designed semistructured interview protocol that was informed by CRT. I designed the protocol and then shared it with CHF nutrition professionals and two qualitative researchers to ensure its validity. The research chair then reviewed the protocol and provided feedback prior to the beginning of data collection. This helped ensure that the protocol was well designed and was likely to elicit data from the participants that were able to inform the research questions and the purpose of the study. The data collection instrument was used to perform the interviews. A semistructured interview protocol (see Appendix) was used.

Data Collection Procedures

Prior to beginning data collection, I obtained Institutional Review Board (IRB) approval for the study; following this, site approval was sought. Recruitment was conducted using Facebook groups for people with CHF. The population of interest was American patients who suffer from CHF. The target population was African American patients who suffered from CHF in Oklahoma. The study sample included 10-12 participants who met the study criteria. However, data collection continued until data saturation was reached. Data saturation occurs when there is enough data to duplicate the study, when it is no longer possible to collect more data, and when further coding is no longer practical.

I identified Facebook groups that targeted the same population as this study and then reached out to the administrators of each group, asking for permission to post information about the study. Site permission was obtained before conducting data collection. When this approval was granted, I posted information about the study, including the purpose of the study, the criteria for participation, and my contact information. Interested participants were then able to contact me. Each participant was then screened for eligibility, and if they were eligible, they were provided with an informed consent form via email. Once the form was acknowledged, I scheduled the interviews. The interviews were conducted via Zoom due to the COVID-19 pandemic. However, while Zoom interviews were preferred for Zoom's video capabilities, I also conducted phone interviews if the participant preferred or was not comfortable with Zoom technology. All interviews were audio recorded and, in the case of Zoom recordings, video recorded. Each participant was asked for their consent prior to beginning the recording. If the participant did not consent to audio recording, they were thanked for their time and dismissed from the study.

After each interview, the interview recordings were automatically transcribed. A copy of the transcript was then sent to the participant for a member check. Participant feedback was incorporated on the transcript if it was provided. Data collection and analysis co-occurred. Each transcript was analyzed after the interview was completed before moving on to the next participant. This process is called sequential interviewing, in which one participant is interviewed, and the data from that interview are analyzed before the following interview is completed (Englander, 2012). This is a typical procedure in phenomenological interviewing because it enables the researcher to modify the study protocol in light of the results of the prior interview, resulting in a protocol that is informed by the participants and produces a deeper description (Englander, 2012).

Data Analysis Plan

After the participants reviewed each transcript, data were uploaded to NVivo 12 for coding. Data were analyzed using Braun and Clarke's (2006) thematic analysis process. Thematic analysis was inductive and involved finding and categorizing trends that appeared in the data after numerous examination and comparison iterations. The following steps comprised the thematic analysis process: (a) reading and rereading the data in their entirety to become familiar with them, (b) spotting patterns of meaning as initial codes, (c) assembling related initial codes into themes, (d) reviewing and fine-tuning the themes, (e) naming and defining the themes to indicate their relevance as answers to the research questions, and (f) developing a presentation of results.

During Phase 1, I read and reread all transcripts in order to become comfortable with the data (Braun & Clark, 2006). I divided up all data sections that were pertinent to the research questions into smaller chunks of meaning in Step 2, which involved recognizing patterns of meaning in the data as initial codes (Braun & Clark, 2006). Basic ideas learned from Stage 1 guided these codes. Basic codes were investigated in Phase 3, taking into account how they related to one another; they were then integrated into more expansive themes (Braun & Clark, 2006). These motifs highlighted a vital aspect of the data and research topics. Themes and the text chunks inside each theme were reviewed in Phase 4; themes were reviewed and then refined by merging when and if suitable, separating when they become divergent, and deleting themes that were not supported by the data (Braun & Clark, 2006). I captured the essence of each theme in Stage 5 during the process of naming and defining themes to indicate their relevance as answers to the research questions. The process involved capturing the actual meaning of themes, the subthemes that existed within themes, and how those subthemes interacted with the central theme (Braun & Clark, 2006). I summarized the results in the final stage of coding, making a presentation of the results (Braun & Clark, 2006). I determined that data saturation had been attained and data collection and analysis finished once the interview data from at least 10 participants were analyzed using the method described by Braun and Clarke (2006) and when the analysis of the data from the last two consecutive participants had not revealed any new themes or insights.

Issues of Trustworthiness

Korstjens and Moser (2018) indicated that establishing a suitable and compatible methodology based on the research purpose was as important as establishing a conscientious research design and procedure for research objectivity and reliability. In qualitative research, trustworthiness defines the credibility, transferability, confirmability, and dependability of qualitative research findings, given that qualitative research does not use instruments with established metrics (Merriam & Tisdell, 2015).

Credibility

Credibility is defined as the extent to which participants believe in a study (Hadi & Closs, 2016). In qualitative studies, the findings are considered credible if they represent the precise interpretation of the participants' experiences, responses, and thoughts (Hadi & Closs, 2016). I ensured the credibility of the study by interviewing at least 10 participants and by reaching data saturation (Hadi & Closs, 2016). Data saturation was assured by collecting data until no new themes were produced in two consecutive participant transcripts. I achieved data saturation in order to ensure that the sample participants accurately reflected the population and that the results were not distorted by exceptional experiences that were not typical of the population. Reaching data saturation meant that, even while each participant's experiences were unique to them, they were at least understandable to other members of the population. Reaching data saturation also helped ensure the transferability of the data. In qualitative studies, credibility may be hurt by using self-reported data, as self-reported data may contain subjectivity (Hadi & Closs, 2016). This possibility was decreased by collecting data until data saturation was reached and ensuring that participants were comfortable speaking freely during their interviews.

Dependability

Qualitative studies may be less dependable if the researcher does not anchor their findings in the data. I ensured dependability by transcribing participant interviews verbatim and by asking each participant to review their transcripts upon completion (member checking). This ensured that the participant and the researcher did not accidentally misrepresent the data. Because the participant clarified their remarks after the fact, member checking helped ensure that participants believed that the statements accurately represented their experiences.

Transferability

In qualitative studies, transferability is reduced due to the small sample sizes inherent to this methodology. By gathering a sizeable enough sample, this study's transferability was improved. Data collection was used to achieve this up until data saturation. By gathering extensive information with detailed descriptions, I further improved the transferability of the study (Hopkins et al., 2017). I boosted the overall amount of data that the study used by doing this (Hopkins et al., 2017).

Confirmability

In qualitative studies, confirmability can be reduced if the researcher does not clearly document the process and ensure biases are bracketed (Hopkins et al., 2017). I reduced this likelihood by carefully documenting the process of data collection and analysis and by setting aside bias prior to the start of data collection. In this study, data were coded by identifying meaning units. After initial coding, I reviewed the codes and transcripts, refined codes as the data required, and ensured that coding drift did not occur.

As my understanding of the themes and codes emerged from the data, coding drift occurred, and there was a need to correct it. Coding drift refers to the phenomenon where a code might mean something different at the beginning of coding than it does at the end of coding (Ratajcyk et al., 2016). By adjusting the codes as necessary, I ensured that the codes remained consistent throughout coding and that another researcher could replicate the coding process; this, in turn, established confirmability. I further ensured confirmability by carefully following the study methods they outlined for the study and made note of any necessary deviations from the study plan.

Limitations

A limitation of the current study was its limited sample size. While I recruited participants until data saturation was reached, it was expected that this would occur between 10 and 12 participants. This limitation relating to small sample size was partially offset by the thickness of the data expected to be produced by in-depth interviews of participants (Seidman, 2012). Because each participant interviewed was expected to produce data that were dense in terms of information quantity and depth, the small sample size was less impactful than it would have been if more surface-level data had been collected (Seidman, 2012). The fact that the United States was dealing with a pandemic caused by the novel coronavirus COVID-19 and that it was unclear when its effects would subside was another potential weakness of the study. As social distance was enforced in many American counties and states, interviews were prevented from taking place in person. Instead of doing in-person interviews, I used Zoom or phone interviews to adjust for this limitation. However, using phone interviews had additional drawbacks because I was unable to see participants' body language or other nonverbal clues during the interview (Seidman, 2012). If participants had participated in video calls rather than audio-only ones, this barrier might have been at least partially alleviated. The final drawback of this study was that it only used self-report data. Self-reported data may not be accurate because individuals can intentionally or unintentionally misremember events or misrepresent them. By reassuring participants of the confidentiality of their remarks and attempting to establish a connection with them so they feel comfortable sharing their honest experiences, I accounted for this limitation of data collection until the data situation was reached (Seidman, 2012).

Ethical Procedures

Throughout the research process, the researcher upheld the confidentiality of the participants and the integrity of the study. The researcher also took all necessary precautions to safeguard privacy and maintain data confidentiality regarding parties other than the researcher. I emailed informed consent forms to each participant before beginning the data collection process. Participants’ privacy was protected with the use of pseudonyms or participant numbers. The audio recordings and participants’ private data were stored in a password-protected computer. The researcher destroyed all materials after three years in adherence to IRB standards.

The Belmont Report's guiding principles were used in this investigation. I adhered to numerous crucial guidelines from the Belmont Report when conducting this study. This entailed upholding beneficence, justice, and respect for participants. Each participant was treated with respect and dignity by the researcher (U.S. Department of

Health and Human Services, 2021). I accomplished this by being courteous to each participant, being open and truthful in their responses, and keeping all commitments made to participants, such as maintaining the confidentiality of their data and correctly portraying their experiences (U.S. Department of Health and Human Services, 2021). In order to assure beneficence, each subject was treated equally. The same protocol questions were asked of participants, and their data and confidentiality were treated the same way (U.S. Department of Health and Human Services, 2021). Finally, I ensured justice was accomplished by sharing the results of the research with each participant and the academic community (U.S. Department of Health and Human Services, 2021).

Summary

The purpose of this qualitative phenomenological study was to explore the nutrition and dietary management experiences of African American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. This study used a phenomenological research design. In qualitative research, the role of the researcher is primarily to serve as the research instrument. This study used purposive sampling. Ten to twelve participants were selected to participate in the study. Instrumentation in this study consisted of a researcher-designed semistructured interview protocol. To ensure the validity of the protocol, I designed the protocol and then shared it with their academic chair. Participants were recruited through Facebook to participate in semistructured interviews. Purposive sampling was used. Data was analyzed using Braun and Clarke's (2006) thematic analysis method. Credibility was ensured by interviewing at least 10 participants and by reaching data saturation. The researcher ensured dependability by transcribing participant interviews verbatim and by asking each participant to review their transcripts upon completion through member checking.

Chapter 4: Results

The purpose of this study was to explore the nutrition and dietary management experiences of Black American patients who suffer from CHF in Oklahoma and the effect of nutrition and dietary interventions in CHF. The following three research questions were used to guide this study:

RQ1: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management?

RQ2: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination?

RQ3: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma?

This chapter includes the following sections: (a) setting, (b) demographics, (c) data collection, (d) data analysis, (e) evidence of trustworthiness, (f) results, and (g) summary.

Setting

The setting of data collection in this study was Zoom. I joined the Zoom videoconference calls from a private, locked office where the call would not be overheard to protect the confidentiality of the participant's identity. The participants were also invited to join the call from a private location. There were no personal or organizational conditions that influenced participants or their experience at the time of the study that may have influenced interpretation of the study results.

Demographics

The participants were 10 adults (age 18 or older) who self-identified as African American, had been diagnosed with CHF by a doctor, and resided in the state of Oklahoma at the time of the study.

Data Collection

One interview was conducted with each of the 10 participants. The setting of data collection was Zoom, the online videoconference service. The interviews were audio-recorded using Zoom's integrated audio-recording feature. The average duration of the interviews was approximately 30 minutes. There were no variations from the data collection plan presented in Chapter 3, and no unusual circumstances were encountered in data collection.

Data Analysis

The interview transcripts were imported into NVivo 14 software for analysis. The data were analyzed using the inductive, thematic procedure by Braun and Clarke (2006). The procedure had six steps, as follows: (a) reading and rereading the data in their entirety to become familiar with the data, (b) spotting patterns of meaning as initial codes, (c) assembling related initial codes into themes, (d) reviewing and fine-tuning the themes, (e) naming and defining the themes to indicate their relevance as answers to the research questions, and (f) developing a presentation of results (Braun & Clarke, 2006).

Step 1: Familiarization With the Data

The transcripts were read and reread in full in NVivo's reading pane to gain a holistic familiarity with the data. The purpose of this step was to gain a comprehensive understanding of the data in which patterns within and across transcripts could begin to be identified. To facilitate the identification of patterns of meaning in later steps of the analysis, handwritten notes were made regarding repeated words, phrases, and ideas.

Step 2: Coding the Data

Coding the data involved two substeps. First, the participants' responses in all 10 transcripts were broken down into units of meaning. Each of the units of meaning consisted of a phrase of a group of phrases that expressed one idea relevant to addressing one of the three research questions in this study. In NVivo, every unit of meaning was assigned to a node. An example of a unit of meaning was found in the following statement from P4: "I need to know the amount of sodium that's contained in the food." In total, 93 meaning units were identified across the 10 transcripts.

The second substep of coding the data involved clustering and labeling similar meaning units (Braun & Clarke, 2006). When two meaning units had similar meanings, they were assigned to the same NVivo node. Each NVivo node represented an initial code. For example, P8 stated, "one of my successes has been becoming more aware of the sodium content in foods." This statement had a similar meaning to the statement of P4's that was quoted above, so it was assigned to the same code. Each code was labeled with a brief, descriptive phrase that summarized the meaning of the data assigned to it. The code to which P4's and P8's statements were assigned was labeled "monitoring sodium intake." Overall, the 93 meaning units identified across the 10 transcripts were clustered into 22 initial codes. Table 1 indicates the initial codes and how many meaning units were clustered to form each of them.

Table 1

Data Analysis Initial Codes

Initial code (alphabetical)	*n* of participants contributing ($N = 10$)	*n* of meaning units assigned to code
Assumptions based on race	3	3
Balancing diet with cultural preferences	3	3
Creation of personalized dietary plan	5	6
Diet improved after CHF diagnosis	8	9
Eating more plant-based foods	5	6
Empathetic nonjudgmental providers	5	6
Failure to consider patient-specific needs	6	7
Improvement in energy levels	2	2
Inconsistent eating schedule	2	3
Judgment caused demoralization	1	1
Lack of provider knowledge about CHF	4	4
Lack of provider knowledge reduced ability to manage	3	5
Maintaining diet on social outings	3	3
Monitoring sodium intake	3	5
No bias experienced	2	2
Patient education	7	10
Portion control	3	3
Portion control is a challenge	3	3
Staying hydrated	3	3
Support network	5	6
Weight loss	2	2
Weight shaming	1	1

Step 3: Searching for Themes

Themes were formed by grouping similar codes into a smaller number of broader patterns of meaning (Braun & Clarke, 2006). For example, the code “monitoring sodium intake” was grouped with seven other codes, including but not limited to “portion control,” “staying hydrated,” and “weight loss.” The eight codes grouped to form this preliminary theme were identified as related because they all indicated participants’ experiences of success with nutrition and dietary management. A second preliminary theme was formed from three codes that all indicated participants’ experiences of unmet needs related to nutrition and dietary management, and three codes that indicated challenges participants had experienced related to nutrition and dietary management were grouped to form a third preliminary theme. A fourth preliminary theme was formed from five codes related participants’ experiences of (or lack of experiences of) physician bias, and a fifth preliminary theme was formed of three codes indicating participants’ experiences of factors that contributed to or detracted from intervention success. Table 2 indicates how the codes were grouped to form the named, finalized themes.

Step 4: Refining the Themes

The themes were checked against the data to confirm that they reflected patterns of meaning in the participants’ original responses (Braun & Clarke, 2006). All codes included in the themes were also checked against the data to confirm that they matched patterns of meaning in the original data. The themes were also checked against one another to ensure that they represented distinct concepts, rather than related concepts that should be presented as a smaller number of composite themes.

Step 5: Naming the Themes

The themes were named by comparing them to the research questions. Each theme was named to indicate its significance as an answer to the research question it was most relevant to addressing. Table 2 indicates how the codes were grouped to form the named, finalized themes.

Table 2

Data Analysis Grouping of Initial Codes to Form Finalized Themes

Theme Initial code grouped to form theme	*n* of participants contributing ($N = 10$)	*n* of meaning units assigned to theme
Theme 1: Successes included implementing healthy dietary changes	10	33
Diet improved after CHF diagnosis		
Discrepant data—inconsistent eating schedule		
Eating more plant-based foods		
Improvement in energy levels		
Monitoring sodium intake		
Portion control		
Staying hydrated		
Weight loss		
Theme 2: Unmet needs included patient education, nonjudgmental providers, and support networks	9	22
Empathetic, nonjudgmental providers		
Patient education		
Support network		
Theme 3: Challenges included balancing diet with cultural preferences, social outings, and portion control	9	9
Balancing diet with cultural preferences		
Maintaining diet on social outings		
Portion control is a challenge		
Theme 4: Most participants did not report physician bias	10	11
Assumptions based on race		
Discrepant data—no bias experienced		
Judgment caused demoralization		
Lack of provider knowledge about CHF		
Weight shaming		
Theme 5: Interventions were effective when based on individual patient needs by a knowledgeable provider	10	18
Creation of personalized dietary plan		
Failure to consider patient-specific needs		
Lack of provider knowledge reduced ability to manage		

Evidence of Trustworthiness

Credibility

In qualitative studies, the findings are considered credible if they represent the precise interpretation of the participants' experiences, responses, and thoughts (Hadi & Closs, 2016). I ensured credibility of the study by interviewing 10 participants and by reaching data saturation (Hadi & Closs, 2016). Data saturation was ensured by collecting data until there were no new themes produced in two consecutive participant transcripts (i.e., the transcripts of P9 and P10). In order to ensure that the sample participants accurately reflected the population and that the results were not distorted by exceptional experiences that were not typical of the population, I achieved data saturation. Reaching data saturation meant that, even while each participant's experiences were unique to them, they were at least understandable to other members of the population. Reaching data saturation also helped ensure transferability of the data. In qualitative studies, credibility may be hurt by using self-reported data, as self-reported data may contain subjectivity (Hadi & Closs, 2016). This possibility was minimized by collecting data until data saturation was reached.

Dependability

Qualitative studies may be less dependable if the researcher does not anchor their findings in the data. I ensured dependability by transcribing participant interviews verbatim and by asking each participant to review their transcripts upon completion (member verification). This ensured that the data were not accidentally misrepresented by the participant or me. Because the participant could clarify their remarks after the fact, member checking helped ensure that participants believed the statements accurately represented their experiences.

Transferability

In qualitive studies, transferability is reduced due to the small sample sizes inherent to this methodology. With a sizeable enough sample, this study's transferability was improved. Data collection up until data saturation was used to achieve this. By gathering extensive information with detailed descriptions, I further improved the transferability of the study (Hopkins et al., 2017). I boosted the overall amount of data that the study included by doing this (Hopkins et al., 2017).

Confirmability

In qualitative studies, confirmability can be reduced if the researcher does not clearly document their process and ensure that biases are bracketed (Hopkins et al., 2017). I reduced this likelihood by carefully documenting the process of data collection and analysis and by setting aside bias prior to the start of data collection. In this study, data were coded by identifying meaning units. After initial coding, I reviewed the codes and transcripts, refining codes as the data required and ensuring that coding drift did not occur. As my understanding of the themes and codes emerged from the data, coding drift was corrected for. Coding drift refers to the phenomenon where a code might mean something different at the beginning of coding than it does at the end of coding (Ratajcyk et al., 2016). By adjusting the codes as necessary, a researcher ensures that the codes remain consistent throughout coding and that another researcher can replicate the coding process; this in turn establishes confirmability. I further ensured confirmability by carefully following the study methods I outlined in the study plan.

Results

This presentation of the study results is organized by research question. Table 3 is a preliminary overview of how the themes are presented to address the research questions.

Table 3

Themes Presented to Address Research Questions

Research question	Theme presented to address question
RQ1: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management?	Theme 1: Successes included implementing healthy dietary changes Theme 2: Unmet needs included patient education, nonjudgmental providers, and support networks Theme 3: Challenges included balancing diet with cultural preferences, social outings, and portion control
RQ2: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination?	Theme 4: Most participants did not report physician bias
RQ3: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma?	Theme 5: Interventions were effective when based on individual patient needs by a knowledgeable provider

Research Question 1

RQ1 was as follows: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management? Three themes emerged during data analysis to address this question: (a) successes included implementing healthy dietary changes; (b) unmet needs included patient education, nonjudgmental providers, and support networks; and (c) challenges included balancing diet with cultural preferences, social outings, and portion control. The following sections are more detailed presentations of these themes.

Theme 1: Successes Included Implementing Healthy Dietary Changes

Eight out of 10 participants indicated that they improved their diets after they received their CHF diagnosis. Dietary improvements included monitoring and reducing sodium intake, staying hydrated, incorporating more plant-based foods such as fruits and vegetables into a regular eating pattern, and practicing portion control. Only two participants provided discrepant data indicating that they did not succeed in implementing healthy dietary changes after they received their CHF diagnosis.

The eight participants who reported that they had improved their diets since their CHF diagnosis indicated that they had cut down on unhealthy foods and increased their intake of healthy foods. P10 described an unhealthy diet prior to the diagnosis: “Before I was diagnosed with congestive heart failure, my nutrition had been terrible. I take a lot of sugary stuff, sugary drinks, sweetened teas, also a lot of energy drinks. I consume a lot of carbs and junk foods.” P10 explained that relying on home-cooked meals instead of pre-packaged foods after receiving the CHF diagnosis helped make the diet healthier: “I have cut down on those junky foods, and I stick with home-cooked meals . . . So it gives me a lot of control over my diet and has helped me avoid those foods that I shouldn't eat.” P4 noted significant changes related to monitoring and reducing salt and fat: “My nutrition and diet have undergone significant changes since my CHF diagnosis. I've also become observant about reducing my sodium and fats in my diet and also unwanted calories into my body, as I've been advised.” P6 also reported a changed diet since receiving the CHF diagnosis: “Prior to my congestive heart failure diagnosis, I truly must confess that I was struggling so hard to manage my nutrition. But after my diagnosis, I must say my nutrition or diet, it has undergone significant changes.” P8 reported eating a lot of fast food before the CHF diagnosis: “Before the diagnosis of CHF, I ate mostly fast food, because of my job, because I'm a truck driver, always on the road, I didn’t really have much time to cook or eat homemade meals.” Since receiving the CHF diagnosis, P8 said, “I try as much as possible to avoid junk food.” Thus, for most participants, the CHF diagnosis was a pivot point that caused them to take control of their diet and nutrition and implement healthy changes.

A specific, healthy change that five participants implemented after receiving their CHF diagnosis was incorporating more plant-based foods, such as grains, fruits, and vegetables, into their diets. P1 said that after receiving a CHF diagnosis, “I started eating a lot of fruits, vegetables, and whole grains. I [also] enjoy a lot of Black American dishes like collard greens and beans, but I make them in a healthy way, without excessive salt or unhealthy fats.” P2 also reported eating more fruits and vegetables: “I'm paying attention to fruits and vegetables, and fiber too, because these are the things that will help my condition. Those are my top priority. I don't go for eating junk.” P6 also said, “I've started incorporating more plant-based foods into my diet for heart-healthy benefits.” Thus, participants were aware of the health benefits of eating plant-based foods, and they had begun to incorporate those foods into their diets to replace less healthy choices, such as junk foods.

Three participants reported that they had made the positive change of monitoring and reducing their sodium intake. P4 described monitoring sodium under the supervision of a healthcare team: “I practice dietary management with assistance from a healthcare team. Some strategies I use for monitoring my sodium intake are paying attention to food labels, cooking at home, and focusing on portion control, which is essential for diet management.” P4 added that as a result of these practices, “I have significantly reduced my sodium intake, which as a result has improved my blood pressure and also [risk of] cardiovascular disease.” P8 also reported success in managing sodium intake: “I'm proud of the positive changes I've made in my eating habits. One of my successes has been becoming more aware of the sodium content in foods and creating balanced meals to include a variety of nutrient-dense foods.” For these participants, then, managing sodium intake involved both awareness and self-discipline, to monitor the amount of sodium in the foods they were consuming and make healthy choices.

Three participants reported that they were successfully practicing portion control as a healthy dietary change since receiving their CHF diagnosis. P2 said that since receiving a CHF diagnosis, “I'm now following the portion control.” P4 also reported, “focusing on my food portion control, which I've learned is essential for my diet management.” P5 explained that portion control helped to prevent overeating: “The management strategy that I've used is learning the importance of portion control, to actually prevent overeating. I focused on balanced meals and eating slowly to give my body time to signal when I'm full.” Thus, to support portion control, P5 consumed food slowly than in the past, to allow the food intake to register and satiation to occur to prevent overeating.

Three participants reported that a positive change they had made since receiving their CHF diagnosis was monitoring their water intake to ensure they stayed hydrated. P2 explained, “The strategy that I'm currently using was staying hydrated . . . because I know that this fluid intake will help my health, will help my condition.” P3 also said, “The dietary management strategy that I have tried to incorporate has been to keep track of fluid intake, as recommended by the healthcare team that I work with, and just ensuring that I stay hydrated.” P7 explained the purpose of staying hydrated: “Staying hydrated is essential because I try to manage it to avoid fluid retention.”

Some participants reported significant, tangible benefits from their improved diets. P10 said, “I think in the past couple of months, I lost about 30 pounds.” P6 also stated, “I have noticed quite a number of changes and successes. Take, for example, I have lost a significant amount of weight, which has reduced the strain on my heart.” P7 felt more energetic: “I've noticed a significant improvement in my energy levels. I feel less sluggish and more active, which motivates me to continue making healthier choices.” P9 also reported improved energy levels: “I have improved energy. I go to the gym. I think I've made a lot of progress. My energy levels, that's the important thing. I don't feel slow, I don't feel sluggish. I'm more active in my daily activities.” Thus, participants had noticed significant improvements as a result of their healthier eating patterns that impacted their day-to-day lives and their overall health and wellbeing.

Two participants provided discrepant data indicating that they had not improved their diets as much as they would like since receiving their CHF diagnosis. Despite practicing some portion control, P5 said, “I don't really have a regular [eating] schedule. And I sometimes skip meals or eat irregularly, which probably contributes to fluctuations in my blood sugar levels. Also, I am used to drinking a lot of sodas and energy drinks.” P5 said that overall,

> I wouldn't really say I have achieved any success so far. Managing my diet since my CHF diagnosis, it has been a journey filled with challenges, because I am still going back and forth to my old habits of eating fast foods and foods with unhealthy fats, which of course we know is not really good for the body.

P7, who reported significantly improved energy levels, also reported limited success in regulating their eating pattern because of their work schedule: “I have an inconsistent meal pattern, and some days, due to my work, I don't have a regular eating schedule. I sometimes skip meals. It contributes to fluctuations in my blood sugar.” The need for dietary and nutrition interventions that took patients’ individual lifestyles and necessities into account emerged as a significant finding in this study, and it will be discussed in further detail under Theme 5.

Theme 2: Unmet Needs Included Patient Education, Nonjudgmental Providers, and Support Networks

Although most participants reported significant success in implementing healthy dietary changes since receiving their CHF diagnosis, they also reported significant unmet treatment, education, and support needs. The most frequently reported unmet need was for additional patient education. Participants reported that they wanted to receive education in the form of advice or materials (e.g., pamphlets) from their providers on topics such as nutritional supplements, healthy snacking options, and cooking tips. Some participants also reported an unmet need for empathetic, nonjudgmental providers, and other participants indicated a need for a social support network to encourage and support them in managing their CHF condition.

Seven participants reported that they had an unmet need for additional patient education. P3 indicated that the market was saturated with supplements, and that patients needed guidance in selecting which ones (if any) were appropriate for helping to manage CHF: “The areas that I need more information on are regarding nutritional supplements. The market right now is oversaturated, with a lot of nutritional supplements that a lot of folks like myself don't even know what it does.” P7 provided a corroborating response, saying that she had heard CHF patients might need some supplements, but that she needed guidance to know which ones were appropriate:

> I realize I need more information regarding nutritional supplements. I've heard that some CHF patients may require nutritional supplements to ensure they are getting all necessary nutrients. I'd like to know what supplements might be beneficial and how they can support my overall health.

P5 wanted more information about healthy snacking options: “I need more information in finding heart healthy snack options that are satisfying and convenient. I would like some suggestions for nutritious snacks that I can incorporate into my diet without compromising my CHF management.” P8 wanted healthy recipes and cooking tips:

> Offer educational materials. That would be very, very helpful, especially in terms of spices not to use in cooking, and foods to avoid, ’cause basically, I've just been eating lean proteins, foods with high fiber, but at some point, it gets boring. So, more alternative options that we can use, and it doesn't make CHF worse.

P9 also wanted more education about healthy snacking options: “I would really like suggestions for the snacks that would help me and that are beneficial to me in terms of my diagnosis.” Thus, the participants indicated that they had a number of unmet needs for education about nutrition and how to maintain a healthy diet while still taking pleasure in eating.

Five participants indicated an unmet need for empathetic (or compassionate), nonjudgmental providers. P10 said, “I would advise medical providers about helping others, I think they should play a more supportive role. And they should be more compassionate . . . they should approach conversations about diet and CHF with a supportive and compassionate attitude.” P9 also stated,

> I would think that a little empathy would help. In managing my diet, I really would like my dietician or my doctors to be nonjudgmental. At times they will just have this judgmental attitude toward you. So, I would say, a little empathy [and] emotional support would be nice.

P9 said that empathy and a nonjudgmental attitude on the part of providers was essential to his health because it enabled him to openly share his concerns and obtain the advice he needed: “I would really love to feel comfortable about sharing my struggles, asking the right questions, or for them pointing me in the right direction without any feel criticism.”

P2 corroborated P9’s perception, saying, “I would suggest that they [medical providers] should create and should make available an environment that is nonjudgmental, so that patients like me will feel more comfortable expressing themselves.” Thus, participants wanted empathy and a nonjudgmental attitude from their providers, not only as a basic form of respect and acknowledgment of their humanity, but also because their resulting ability to speak openly about their needs and concerns could directly impact the quality of care they received.

Five participants reported an unmet need for a social support network to encourage them in managing their CHF. P4 described this missing support as potentially the most valuable one he could have: “I think what would support me the most is, when you have a dedicated support network. I believe this should include participating in CHF patient support groups, or maybe the community in order to share experiences.” P7 agreed that participating in a support network of other CHF patients would be a helpful source of social support: “Being part of a support network with other CHF patients would be beneficial. Sharing experiences and challenges with all those who understand what I'm going through would provide encouragement and motivation.” P3 also described a support network composed of fellow CHF patients as a potentially valuable support: “Having a supportive network is one of the best ways to make me feel supported. Being part of a support network with other CHF patients would, I think, be very beneficial, because it would make me feel less alone.” Participants therefore cited a support network composed of fellow CHF patients as a potentially valuable social support resource because it would enable them to receive encouragement and camaraderie from the people who could relate most directly to the challenges and successes they experienced.

Theme 3: Challenges Included Balancing Diet With Cultural Preferences, Social Outings, and Portion Control

When participants described the challenges that made it more difficult for them to achieve success in implementing healthy dietary changes, they reported three in addition to the unmet needs described under the previous theme. The first challenge was that of balancing a healthy diet with their cultural preferences as African Americans, which they associated with culinary traditions that involved heavy use of salt, fat, and carbohydrates. A second challenge was maintaining healthy dietary patterns during social outings, when there was social pressure to overeat. A third challenge was portion control, which some participants described as difficult to maintain.

Three participants reported the challenge of reconciling their healthy dietary choices with African American culinary traditions. P5 explained, “As a person with a cultural Black background, it can be difficult to balance cultural preferences with dietary restrictions.” P8 also said, “As an African American, we are used to soul foods, very seasoned and spicy foods. My challenge is now I have to start learning how to make dishes and try to get used to dishes that are not spicy.” P10 described the same challenge in saying, “I love certain kinds of foods, which are like traditional foods . . . so it's been quite difficult following the dietary plan recommended by my dietician.” The need for dietary interventions that take into account the personal and cultural preferences of the individual patient is discussed further under Theme 5 in this chapter.

Three participants reported that they found it challenging to stick to their healthy eating habits on social outings. P1 said that eating at restaurants made sodium more difficult to restrict: “When I go out with my friends, I find it so difficult to eat in a restaurant because most of the food is filled up with sodium.” P6 described maintaining healthy eating habits at social gatherings as her most significant challenge:

> It's been challenging to make heart-healthy choices while still enjoying social events. To be honest with you, it's almost impossible to explain why I'm not flexible with my intake at social gatherings. Sometimes I'm with friends, and they try to offer me certain kinds of dishes, and I'm objecting to it. Some people find it offensive. They're not happy with my refusal. That's the most difficult challenge I face, a lot of times, because I really cannot go about telling everybody why I'm doing what I'm doing.

In P6’s response, she described how social pressure was exerted to make her uncomfortable with maintaining her healthy eating pattern, and how she was also uncomfortable telling her acquaintances the reason (i.e., her CHF diagnosis) for her refusal to consume certain foods. She therefore had to choose between giving offense to her friends and relinquishing her privacy with respect to her medical condition.

Three participants indicated that they found portion control challenging. P7 said that portion control was a challenge because portion sizes needed to be reduced to achieve a healthy diet: “Controlling portion sizes was a huge challenge, especially when my previous eating habits involved larger food portions.” P2 described portion control as the most significant challenge he faced: “The challenge that I had was portion control. I can just say that portion control was my hardest mountain to climb. I'm still struggling with that." P2 added that prior to the CHF diagnosis, "I was trying to quench my hunger. I didn't care about maintaining the right portions to eat," and that this habitual disregard of healthy portion sizes contributed to the situation at time of study, in which, "Portion control has been the most challenging thing I had." Thus, a habit of overeating contributed to the challenge of reducing portion sizes to achieve a healthier eating pattern after receiving a CHF diagnosis.

Research Question 2

RQ2 was as follows: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination? The theme that emerged during data analysis to address this question was:

Theme 4: Most Participants Did Not Report Physician Bias

Four out of 10 participants reported encountering some form of bias in their medical providers. Three of those participants perceived the bias they encountered in their providers as racial in nature. The fourth participant described the bias as a prejudice against overweight persons. Feeling judged, or feeling that medical providers were biased or were making biased assumptions, negatively impacted participants' ability to comply with their treatment, and therefore may have negatively impacted their health. The remaining six participants did not report that they encountered bias.

Three participants reported that they encountered racial bias in their medical providers, in the sense that their providers made assumptions about them based on their race. P5 reported that providers made assumptions about his diet because of his race rather than discussing individual preferences:

> Unfortunately, I have experienced cultural bias and discrimination when discussing my diet and my CHF condition with some medical providers. In some instances, I actually felt certain medical providers made assumptions about my diet based on my race or cultural background. They didn't see my individual preferences, which made it challenging to connect with my recommendations.

P9 provided a corroborating response: “I would say that some medical practitioners were being stereotypical about the type of food that I should eat based on the fact that I'm African American. Yeah, I think that they were discriminative toward me.” P10 also said, “I have experienced certain kinds of cultural bias and discrimination when discussing about my diet and CHF with my medical providers. I felt like these providers made assumptions about my diet based on my cultural background.” Thus, the form of bias that these participants experienced was that medical providers would make assumptions about what they ate because of their race. P8 reported being discriminated against, or stereotyped, for being overweight:

> They stereotype you because of your weight and only focus on talking about your weight as the main cause of the CHF, instead of focusing on how you're gonna manage the situation, the CHF itself, but then to focus on the weight and always talking about how you’re overweight. So, that's a very big bias and discrimination . . . It's more like body-shaming.

The impact of discrimination was to make medication recommendations less relevant and more difficult to follow. P10 said that the provider's race-based assumptions about diet, "made it challenging to connect with setting recommendations and setting plans that they asked me to follow." P5 also said of the effect of racial bias that it, "made it challenging to connect with my recommendations." P8 said that the effect of feeling "body-shamed" was, "It left me feeling demoralized. I felt so sad, but the worst part of it was, it made me even find it more difficult to maintain my diet and my exercise regime." Thus, feeling judged, or feeling that medical providers were biased or were making biased assumptions, negatively impacted participants' ability to comply with their treatment, and therefore may have negatively impacted their health.

Research Question 3

RQ3 was the following: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma? The theme that emerged during data analysis to address this question was:

Theme 5: Interventions Were Effective When Based on Individual Patient Needs by a Knowledgeable Provider

The participants indicated that their dietary interventions were successful when they were personalized, in the sense that the plan was developed to meet their own individual needs. Interventions were less successful when participants' individual needs were not considered. Another factor that impeded the success of interventions was lack of provider knowledge about CHF, a circumstance that almost half of the participants encountered.

Five participants indicated that their interventions were successful because they were based on a personalized dietary plan that was tailored to meet their individual needs. P2 said of the dietary plan, “This personalized plan really helped me. It was for me personally, the kind of thing that my body needs. So this is very positive.” In a representative response, P2 described the process by which the personalized dietary plan was created, a process involving a doctor and a dietician, and extensive questioning of the patient, to take into account personal and cultural preferences, as well as medical needs:

> I told him [my doctor] about everything, my cultural background and everything, so when he was introducing this personalized diet plan, made mention to include my cultural foods. He didn't just neglect everything. Because he asked me a lot of questions: hey, did you like this, like that? What do you think about this? So he has this extensive research that he made as regards to the nutrients, because the dietitian was also there to help to know the kind of cultural food that I like, that he puts into my plan.

P3 offered a second, corroborating example of how a medical provider could help a CHF patient develop a successful, personalized dietary intervention by questioning and actively listening to them:

> The healthcare provider really listened closely and attentively to my health concerns and challenges as I explained them, and it definitely felt really good to be listened to, and they definitely helped create a personalized diet plan that really took into consideration and account of my CHF condition, fluid restrictions, and nutritional needs.

P7 described a similar experience: “An interaction I had with a medical provider that I think positively impacted my diet and CHF management was him taking the time to understand my cultural background and dietary preferences.” A recurring element of the dietary plans that participants described as successful, then, was individualized tailoring based on medical providers taking the time to carefully question about personal and cultural dietary preferences, and reconciling those preferences with nutritional needs.

In contrast, participants described dietary interventions as unsuccessful when medical providers did not use a tailored approach, and instead tried to use a generalized, ‘one-size-fits-all’ approach. P5, who in language quoted under Theme 1 in this chapter reported that he had experienced “no successes” in improving his diet, explained that his medical providers’ attempt to use a generalized approach in the intervention was unsuccessful:

> An interaction I had with a medical provider that I think negatively impacted my diet and CHF management is his generalizations. The provider made sweeping generalizations about my diet and heart health without considering my individual needs. They assumed that all CHF patients should follow the same diet, which didn't align with my preferences and cultural background.

P7, who later changed to a different doctor and obtained a more successful intervention, initially saw a medical provider who failed to provide a personalized dietary regimen:

> An interaction I had with a medical provider that I think negatively impacted my diet and CHF management is a lack of personalized recommendations. The provider didn't provide any personalized recommendations, or offer practical

> strategies for managing my diet with CHF. I left the appointments feeling uninformed and unsure about what steps to take, honestly.

Thus, when providers offered tailored recommendations based on careful questioning of the patient to ascertain individual preference and needs, dietary interventions were more likely to be successfully. Conversely, when providers offered generalized, ‘one-size-fits-all’ recommendations that did not take individual preferences and needs into account, participants described those interventions as unsuccessful in leading to the implementation of healthy dietary changes.

Lack of provider knowledge of CHF was another significant barrier to successful dietary interventions, according to three participants. P1 said, “What I have with my medical provider that I think negatively impacted my diet and my condition management is that the medical provider had limited knowledge about my condition.” P2 reported, “The medical provider, they had little to no knowledge and experience of CHF. So, he just gave me some aspirin and told me, ‘Hey, you're okay.’ And so that negatively impacted my diet and CHF management.” Participants therefore indicated that providers who lacked knowledge of CHF were unable to impart useful knowledge of guidance to patients.

Summary

RQ1 was: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management? Three themes emerged during data analysis to address this question. The first RQ1 theme was: successes included implementing healthy dietary changes. Eight out of 10 participants indicated that they improved their diets after they received their CHF diagnosis. Dietary improvements included monitoring and reducing sodium intake, staying hydrated, incorporating more plant-based foods such as fruits and vegetables into a regular eating pattern, and practicing portion control. Only two participants provided discrepant data indicating that they did not succeed in implementing healthy dietary changes after they received their CHF diagnosis.

The second RQ1 theme was: unmet needs included patient education, nonjudgmental providers, and support networks. Although most participants reported significant success in implementing healthy dietary changes since receiving their CHF diagnosis, they also reported significant unmet treatment, education, and support needs. The most frequently reported unmet need was for additional patient education. Participants reported that they wanted to receive education in the form of advice or materials (e.g., pamphlets) from their providers on topics such as nutritional supplements, healthy snacking options, and cooking tips. Some participants also reported an unmet need for empathetic, nonjudgmental providers, and other participants indicated a need for a social support network to encourage and support them in managing their CHF condition.

The third RQ1 theme was: challenges included balancing diet with cultural preferences, social outings, and portion control. When participants described the challenges that made it more difficult for them to achieve success in implementing healthy dietary changes, they reported three in addition to the unmet needs described under the previous theme. The first challenge was that of balancing a healthy diet with their cultural preferences as African Americans, which they associated with culinary traditions that involved heavy use of salt, fat, and carbohydrates. A second challenge was maintaining healthy dietary patterns during social outings, when there was social pressure to overeat. A third challenge was portion control, which some participants described as difficult to maintain.

RQ2 was: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination? The theme used to address this question was: most participants did not report physician bias. Four out of 10 participants reported encountering some form of bias in their medical providers. Three of those participants perceived the bias they encountered in their providers as racial in nature. The fourth participant described the bias as a prejudice against overweight persons. Feeling judged, or feeling that medical providers were biased or were making biased assumptions, negatively impacted participants' ability to comply with their treatment, and therefore may have negatively impacted their health. The remaining six participants did not report that they encountered bias.

RQ3 was: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma? The theme that emerged during data analysis to address this question was: interventions were effective when based on individual patient needs by a knowledgeable provider. The participants indicated that their dietary interventions were successful when they were personalized, in the sense that the plan was developed to meet their own individual needs. Interventions were less successful when participants' individual needs were not considered. Another factor that impeded the success of interventions was lack of provider knowledge about CHF, a circumstance that almost half of the participants encountered. Chapter 5 includes discussion, interpretation, and implications derived from these results.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine the nutrition and dietary management experiences of Black American patients suffering from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. The target population of interest included African American adults diagnosed with CHF who had utilized nutrition and dietary management in Oklahoma. Braun and Clark’s (2006) thematic analysis method was followed to analyze the data collected. This study used a qualitative research method. A qualitative method provides opportunities for a researcher to explore phenomena and ask *how* and *why* questions (Yin, 2018). I conducted purposive sampling to identify participants who met the recruiting criteria outlined and invited them for semistructured interviews following an interview protocol.

The study was important because it was conducted to provide better information for African American patients suffering from CHF in Oklahoma, contribute knowledge to public health organizations and practitioners, improve the CHF care for African Americans, and reduce their family stress and financial burden.

Thematic data analysis outcomes indicated that healthy dietary changes constituted success in implementing such dietary changes. From the study findings, dietary improvements comprised monitoring and reduction in sodium intake, improving hydration of the body, and using more plant-based foods, including fruits and vegetables, in a regular eating pattern. However, some participants indicated that they failed to implement healthy dietary changes after receiving their CHF diagnosis. There are unmet needs such as educating patients, nonjudgmental providers, and support networks. Patient education needs were reported to be unmet. Although participants desired to receive education in the form of advice or reading materials such as pamphlets, they did not receive such knowledge on dietary changes and patterns.

The findings also revealed that participants needed patient education about nutritional supplements, healthy snacking options, and cooking tips. The results indicate the need for a social support network to encourage them to manage their CHF condition. Some challenges faced by the patients included balancing diet with cultural preferences, social outings, and portion control. Further, the findings revealed that most participants did not report physician bias, including prejudice against overweight persons, feeling judged, or feeling that medical providers were biased, which negatively impacted participants' ability to comply with their treatment and, therefore, may have negatively impacted their health. Research data also demonstrated that interventions were effective and successful when based on individual patient needs by a knowledgeable provider. However, interventions were less successful when participants' individual needs were not considered and there was a lack of provider knowledge about CHF, a circumstance that almost half of the participants encountered. Chapter 5 includes a discussion and interpretation of the findings, limitations of the study, and implications, as well as the recommendations derived from these results. Moreover, the conclusion of the study is provided.

Interpretation of the Findings

Research Question 1

RQ1 was as follows: What are the lived experiences of African American CHF patients in Oklahoma with nutrition and dietary management? Research data showed that participants believed that success in nutrition and dietary management constituted implementing healthy dietary changes, as some participants revealed that they improved their diets after they received their CHF diagnosis. Such dietary improvement among CHF patients involved monitoring and reducing sodium intake, consistent hydration, using plant-based foods, including fruits and vegetables, a regular eating pattern, and practicing portion control. The findings imply that when CHF patients implement healthy dietary changes in their eating pattern, it leads to success in nutrition and dietary management; this success includes the ability to monitor and reduce the intake of sodium and improve body hydration.

These findings align with previous research, which revealed that improving diet quality results in cardiovascular benefits. For example, adhering to the Mediterranean diet has been found to reduce risks of CHF and other heart-related diseases (Laster et al., 2018). The previous literature findings contribute to this study's findings by highlighting how adhering to Mediterranean diet changes and patterns leads to heart benefits, including reducing risks of CHF and other heart-related diseases. As indicated in the current study, implementing healthy dietary changes such as eating plant-based foods such as fruits and vegetables, monitoring intake of sodium, staying hydrated, and practicing food portion control can enhance dietary management for CHF patients.

Similar to the current study findings, McGrath et al. (2020) suggested that a heart-healthy diet, including dietary changes with more fruits and vegetables, is important to the treatment of CHF among African Americans.

The findings have also been reported in other studies, such as that of Van Nuys et al. (2018), who reported a dose-response inverse relationship between diet quality and CHF morbidity and mortality by indicating that an increase in diet quality results in a decrease in cardiovascular mortality and total mortality. The current findings are also consistent with previous research. The American College of Cardiology and the Department of Health and Human Services advise people to consume a lot of fruits, seeds, vegetables, nuts, and legumes to improve heart health (McKay et al., 2019). Enhanced intake of plant-based foods such as fruits and vegetables can also be observed in previous research, which indicates that because of low income, many African Americans diagnosed with CHF had access to an unbalanced diet due to low intake of fruits, vegetables, and dairy products with high consumption of processed foods (Kolahdooz et al., 2018).

Confirming the current study findings, Bai et al. (2019) reiterated that, due to low income, many African Americans had inadequate intake of fiber, calcium, and Vitamin A and C foods, the majority of which should be fruits and vegetables. Consistent with current study results, Coughlin et al. (2021) suggested that more fruits, grains, and vegetables be included in the WIC program, significantly for African Americans because they are affected by hypertension and other heart diseases, and interventions that can boost purchasing power for healthy foods and decrease the affordability of harmful foods are required to improve the dietary management of marginalized people.

While some of the findings in Theme 1 indicated significant success in implementing healthy dietary changes since receiving a CHF diagnosis, they also reported significant unmet treatment, education, and support needs. Although patients require education in the form of advice or materials with information on nutritional supplements, healthy snacking options, and cooking tips, such needs were not met. CHF patients need a social support network to encourage and support them in managing their CHF condition through improved dietary changes and management. The study outcomes align with past research, which demonstrated that it is vital to prevent disparities by reaching children and young adults with education about the importance of a healthy lifestyle for maintaining health. In the same manner as the current study findings, Iwegbu (2020) asserted that disparities in the quality of the diet are caused by several factors, including income, education level, race, and food assistance programs in the country, where patients lack education regarding healthy diet to prevent various heart diseases. Glynn et al. (2019) found that individuals with high SES had a higher quality diet than those with low and middle SES.

Confirming current study findings, previous literature indicates that the nutritional and dietary challenges experienced by African American patients suffering from CHF can be attributed to low SES, unavailability of healthy food supplies, and limited nutritional knowledge and education (Ananian et al., 2018). However, Aggarwal et al. (2018) revealed that low levels of education and limited access to healthy foods are some of the reasons why more African Americans were diagnosed with heart conditions and other severe forms of cardiovascular conditions than Whites. The current research findings have also been reported by Aggarwal et al. (2018), who demonstrated that when it comes to treating heart failure and associated conditions, medical practitioners have rarely considered educating patients about weight management, nutrition, mindfulness, exercises, and dietary composition. As Sanjeev et al. (2018) reported, education is important in ensuring that patients with CHF not only adhere to the required diet, but also inform themselves of anticipated nutritional challenges and how to address them.

The challenges to dietary management among CHF patients include balancing diet with cultural preferences, social outings, and portion control. These challenges make it more difficult for them to achieve success in implementing healthy dietary changes. The findings imply that participants with CHF were faced with difficulties in balancing a healthy diet with their cultural preferences as African Americans, which they associated with culinary traditions that involved heavy use of salt, fat, and carbohydrates. Difficulty maintaining healthy dietary patterns and controlling the required portion was a challenge to the patients with CHF diagnosis. Belle (2019) also presented that African Americans' value for their cultural soul food hindered their adherence to diet and nutrition. The challenge here is that even with the associated health implications of soul foods, African Americans find it difficult to restrict themselves to the diet that will help with their CHF.

Aligning with the current research outcomes, previous research indicates that African Americans attach value to cultural meals or foods born out of cultural necessity and influence, which presents a challenge to adherence to dietary patterns (Ling et al., 2020). Ling et al. (2020) indicated that many African Americans prefer soul foods, which they usually associate with history and social interactions, despite the possibility of the meals resulting in health problems. Such cultural food challenge makes it more difficult for patients to achieve success in implementing healthy dietary changes. As revealed by Belle (2018), cultural foods valued by African Americans are usually rich in gravies with a lot of fatty meats that are strongly and typically associated with the development of heart conditions, including CHF.

The challenges to maintaining a dietary plan were also indicated in previous research highlighting that inasmuch as the soul foods have been associated with health problems, African Americans have proved resistant to changing or preparing their soul foods in healthier ways to reduce gravies and fatty meats associated with health foods (Whitaker et al., 2018). Further, as indicated in the current research findings, past studies revealed the impact of culture on nutrition and diet for African Americans with CHF, as cherished soul meals posed a challenge to this marginalized community sticking to healthy dietary foods (Lynch et al., 2019; Whitaker et al., 2018). The findings have contributed to the previous literature by establishing that with CHF, patients are faced with difficulties in balancing a healthy diet with their cultural preferences as African Americans.

Research Question 2

RQ2 was as follows: How are the experiences of African American CHF patients in Oklahoma impacted by bias and discrimination? While the majority of participants in this study reported that they did not experience physician bias, others reported encountering some form of bias in their medical providers. The forms of bias experienced by participants were racial and prejudice against overweight persons, feeling judged, or feeling that medical providers were biased or were making biased assumptions. These biases negatively impacted their ability to comply with their treatment and, therefore, may have negatively impacted their health. The findings imply that experiencing biases, including prejudice against overweight individuals, feeling judged, and biased assumptions, contributes to nonadherence to dietary patterns among CHF patients. Experiences of biases against minority CHF patients were mentioned by Schnabel and Benjamin (2020), who recommended understanding and identifying those who were the target of bias, which could help in developing effective interventions.

Nayak et al. (2020) pointed out several social determinants of health that increase an individual's susceptibility to heart failure, including residential and neighborhood environment, implicit bias, and low levels of education. These are challenges experienced by CHF patients. Besides deprived neighborhoods, increased cases of implicit bias have also increased the risks of developing congestive heart conditions among African Americans.

Current research findings were also confirmed by Schnierle et al. (2019) in reporting that implicit bias was likely to affect how medical and clinical officers made their judgment and clinical decisions on minority CHF patients. Lo et al. (2018) also revealed that due to implicit bias, many people from marginalized communities were not treated in hospitals despite showing apparent symptoms of heart failure or associated cardiovascular diseases. Lo et al. (2018) argued that due to implicit bias, Latinos and

Blacks were less likely to be treated for heart failure, let alone be admitted for treatment due to bias and discrimination by healthcare providers. The bias in clinical officers meant that Black patients with CVD were rarely treated, and if treated, the treatment was substandard (Breathett et al., 2019). The current research outcomes add to previous literature by revealing that biases such as prejudice against overweight people, feeling wrongfully judged, and biased assumptions contribute to not adhering to the dietary pattern among African American CHF patients.

Research Question 3

RQ3 was as follows: What are the effects of nutrition and dietary interventions in CHF from the perspectives of African American CHF patients in Oklahoma? The interventions, as reported by participants, included developing a dietary plan to meet patients' individual needs, which was regarded as successful. However, interventions were less successful when patients' needs were not considered or met. Lack of provider knowledge about CHF also impeded the success of dietary interventions. The study outcomes imply that a successful dietary plan that meets individual needs can help CHF patients manage their diets, while unsuccessful dietary plans indicate a lack of provider knowledge, and the CHF patient's plan is not met.

However, according to previous research by Acharya et al. (2019), dietary interventions based on the needs of African Americans from the South cannot be relevant to all African Americans. The differences in diet and health behaviors among African Americans are caused by factors such as SES, geographic origin, food accessibility, and life experiences. Wickman et al. (2021) also suggested the need for randomized controlled interventions to offer definitive evidence related to the use of dietary approaches in CHF management. The divergence in findings between the current study findings and previous research could be due to different sample sizes and participants used in these studies as well as different interpretations. Wickman et al. (2021) suggested that effective, evidence-based interventions for CHF prevention and management were needed to improve patient longevity, symptom control, and quality of life. In contrast to the current study findings,

Lack of provider knowledge about CHF also impeded the success of dietary interventions. Agreeing with the current study results, Hamilton-Elliott et al. (2018) argued that the lack of knowledge and agreement on thorough dietary recommendations and practical evidence for African American CHF patients constrained the capacity of healthcare professionals to put clinical advice into practice. Precision nutrition approaches could be used to improve clinical care, satisfy the demands of a wide range of patients, and improve medical nutrition therapy, just as evidence dietary approaches and interventions could have a positive impact on CHF patients (Athilingam et al., 2019). These findings have contributed to prior research by revealing that a successful dietary plan meets a person’s needs, which might help CHF patients manage their diets, while a lack of provider knowledge and the unmet CHF patient’s plan and needs led to unsuccessful dietary interventions.

This study is a baseline to establish a future framework the findings provide tailored interventions for dietary management among African Americans with CHF. The future framework would provide patient-centered care establishing appropriate suggestions for dietary change management among African American patients diagnosed with CHF. The current research findings provide education and awareness about dietary change management which could be used in future frameworks for diverse interventions.

Limitations of the Study

The limitation of this study was the restriction on one-on-one interviews following the COVID-19 rules established by the U.S. government when in-person contact was not available. This made the collection of data complex during the pandemic.

The second limitation of this study was associated with the sampling method and the target population of interest. African American adult patients in Oklahoma who meet the inclusion criteria outlined were selected as the study participants. This suggests that the study's generalization may be restricted to this demographic and the state of Oklahoma as a whole and may not apply to other areas or nations.

Semistructured interviews were used as the tool for data collection; as a result, one of the limitations was the degree of honesty and integrity with which each study participant responded to the interview questions. Additionally, semistructured interviews were limited in that study participants' responses depended on their understanding of the topic. As a result, poor or limited responses could lead to poor data collection for the study, hence affecting the validity of the research outcome.

This study was limited to patients who had been diagnosed with CHF by a doctor as participants. The researcher did not consider including medication participants such as doctors. This would have provided more insight regarding dietary change and management.

In the current research, the relationship between smoking/alcohol use and CHF has not been explored. The current study findings did not provide insight into how smoking/alcohol use may contribute to CHF among patients. Another limitation of this study was the lack of discussion of medical insurance which could help patients of CHF. Further, this study focused on short-term compliance with dietary management among patients with CHF; thus the limitation is that long-term compliance was not explored.

Recommendations

Recommendations for Future Research

The limitation of this study was associated with the sampling method and the target population of interest. African American adult patients in Oklahoma who meet the inclusion criteria outlined were selected as the study participants. This suggests that the study's generalization may be restricted to this demographic and the state of Oklahoma as a whole and may not apply to other areas or nations. Based on this limitation, future research should be conducted with a diverse target population, including both minorities and Whites, for comparison purposes in a quantitative study.

Future research should be conducted using mixed quantitative and qualitative method designs to avoid overreliance on qualitative data, which may constitute participant response bias. Semistructured interviews were used as the tool for data collection; as a result, one of the limitations was the degree of honesty and integrity with which each study participant responded to the interview questions.

Although the risk of heart problems is prevalent among minorities because of health disparities, there is a need for future studies to consider including White race as participants to determine the prevalence of CHF disease in comparison with African American minorities. Giovanni et al. (2019) maintained that the risk was still high among members of the Black population and that the disparity in prevalence by race was yet to change.

More studies can be conducted to determine the impact of SES, geographic origin, food accessibility, bias, and discrimination on African American patients with CHF. Lo et al. (2018) argued that due to implicit bias and discrimination, Latinos and Blacks were less likely to be treated for heart failure, let alone being admitted for treatment due to bias and discrimination by healthcare providers.

Recommendations for Practice

Create awareness through education and mentorship programs to enlighten minority communities about the need to adhere to CHF medication. The awareness creation can also inform the practitioners who lack knowledge of how to handle cases of CHF conditions and the need for equality in treatment without racial discrimination and bias. Acknowledging the need for challenges to dietary management, including the challenge of eating a balanced diet and maybe a lack of resources to access healthy foods.

Introduce suggestions and complaint centers within the healthcare facility to allow patients who experience bias and discrimination to report prejudices they experienced. This would increase adherence to dietary approaches to CHF among African American patients who would seek advice from the practitioner without feeling judged or feeling that medical practitioners were biased, which negatively affected their ability to comply with CHF treatment schedule and dietary patterns.

This study could increase knowledge of CHF interventions, dietary approaches to CHF, and African American CHF patients. Teerlink et al. (2017) argued that no therapies had conclusively been effective in reversing CHF and hence highlighted the need for future research. Schnabel and Benjamin (2020) recommended understanding and identifying those who were the target of bias, which could help develop effective interventions. Alegria et al. (2021) indicated that little progress had been made in reporting race and SES for CHF patients in the United States.

It is recommended that medical insurance incentives should be provided to CHF patients. Such medical incentives would enhance their access to medication, and nutrition centers for consultation and assistance. Acknowledging the need for challenges to dietary management, including the challenge of eating a balanced diet and maybe a lack of resources to access healthy foods and medication would necessitate medical insurance incentives for African Americans. Nayak et al. (2020), African Americans live in impoverished and low-income neighborhoods which negatively influence their ability to access healthy fresh foods and medication. Such status necessitates the provision of medical insurance incentives for CHF patients.

Healthcare institutions should implement precision medicine to enhance the medical treatment of individual patients with specific unique characteristics to enhance service quality and adherence to dietary management. According to Wickman et al., precision nutrition approaches could be used to improve clinical care, satisfy the demands of a wide range of patients, and improve medical nutrition therapy. Similarly, encouraging personalized medicine can lead to improved treatment outcomes and enhance medical nutrition therapy.

It was also recommended that healthcare organizations should provide culturally competent medical providers. Ensuring there are culturally competent medical providers for patient treatment improves access to healthcare services and the use of performance measures among medical practitioners. This contributes to improved adherence to dietary change management guidelines. The approaches to developing culturally competent CHF treatment across the US should incorporate clear communication between patients and caregivers, more accessible access to healthcare services, and the use of performance measures (Cornelius et al., 2022).

Implications

The implications of this study were described in different sections, including implications for positive social change, theoretical implications, and recommendations for practice.

Implications for Positive Social Change

This study could have practical implications and promote positive social change. The findings may help healthcare professionals implement various dietary interventions, including a social support network to encourage them in managing their CHF condition and patient education about nutritional supplements, healthy snacking options, and cooking tips. Implementing these interventions would help address the disparity in the prevalence of CHF among African American minorities. Of all the populations, African Americans experience a higher burden of CHF and poor outcomes (Laster et al., 2018).

African Americans with CHF would use the study findings to adhere to dietary management plans to reduce cases and issues of heart failure, stroke, hypertension, and coronary heart disease (CHD), which affects individuals with low SES. African Americans have more than one socio-environmental factor linked to a high CHF burden (Nayak et al., 2020). By exploring the vital insights of African American adults diagnosed with CHF and who have utilized nutrition and dietary interventions, the findings of this study could provide better information for patients suffering from CHF in Oklahoma and help mitigate their CHF. Through education programs about dietary management, organizations, and practitioners can

Healthcare organizations would adopt this study outcome to implement education and awareness programs about CHF to enhance the need for effective dietary management among patients. The findings could contribute knowledge to public health organizations, practitioners, responders, and the general public regarding the lived experiences of African Americans with CHF. In improving the CHF care and overall well-being of the African American community and reducing the stress and financial burden of the African American families of CHF patients, this study could also promote positive social change. Therefore, organizations can take advantage of this study outcome by adopting effective, evidence-based interventions for CHF prevention and management needed to improve patient longevity, symptom control, and quality of life. Chen et al. (2017) suggested evidence of the benefits of home tele-monitoring on mortality and hospitalizations. Wickman et al. (2021) argued that the absence of a consensus for comprehensive dietary guidelines and pragmatic evidence limited the ability of healthcare providers to implement clinical recommendations.

Theoretical Implications

This study adopted CRT. CRT is a framework for the social sciences that looks at society and culture concerning how race, law, and power are categorized in the U.S. (Delgado et al., 2017). CRT maintains that racism is innate in institutions of the United States to the extent that they function to create and then maintain social, economic, and political inequalities between Whites and African Americans (Crenshaw, 2011). The findings resonate with CRT by establishing that bias and discrimination based on race affected African Americans while receiving treatment from the practitioners. The findings are consistent with the CRT, which was suitable for this study because it has been largely applied to researching and understanding the structural or nature of racism and the goal of eliminating all race-based and unjust hierarchies (Crenshaw, 2011; Delgado et al., 2017). African Americans experience the highest level of CHF compared to Whites. The implication is that racism has negatively affected the treatment and management of CHF among African American patients with CHF, including providing awareness about dietary management.

CRT was used to understand the perspectives and experiences of African American patients with CHF within the U.S. healthcare system. According to Freeman et al. (2017), African Americans experience structural racism and macrolevel systems that reinforce inequities among racial/ethnic groups. CRT was employed in health research by Cunningham and Scarlato (2018) and FitzGerald and Hurst (2017) to identify the necessity for healthcare workers to address the impact of implicit biases in healthcare disparities. The current study findings highlighted that different cultural food beliefs impacted the adherence to dietary management plans among African-American patients with CHF. Similarly, the findings highlighted bias and discrimination based on racial affiliation, which contributes to the limited treatment accorded to minorities by racist healthcare providers. The implication is that the findings contribute to CRT by revealing bias and discrimination African American patients with CHF face when seeking treatment and interventions.

Conclusion

The purpose of this study was to examine the nutrition and dietary management experiences of Black American patients suffering from CHF in Oklahoma and the effect of nutrition and dietary interventions on CHF. The study was important because it provided better information for African American patients suffering from CHF in Oklahoma, contributed to knowledge for public health organizations and practitioners, improved the CHF care for African Americans, and reduced their family stress and financial burden. The study provides insight into various interventions, challenges, and factors affecting African American patients with CHF in their dietary and treatment approaches. There is a need for education for African Americans concerning nutritional supplements, healthy snacking options, and cooking tips, as well as a social support network to encourage them to manage their CHF condition. Racial bias and discrimination, cultural differences in terms of food consumption, and lack of knowledge among medical practitioners were major challenges facing dietary management and treatment for CHF. These challenges contributed to the difficulty in dietary management in which patients failed to adhere to eating patterns and healthy foods such as plant-based foods, including fruits and vegetables. Further research is needed to determine the reasons for disparities in CHF prevalence and dietary management between African Americans and Whites.

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Appendix: Interview Protocol

1. How would you describe your nutrition and diet?
2. Do you practice dietary management? If so, what strategies do you use?
3. What has been challenging in regard to managing your diet?
4. What successes have you had managing your diet?
5. Has your doctor of other medical provider spoken to you about nutrition and dietary interventions that may help people with chronic heart failure? If so, what interventions have they spoken with you about?
6. Have you experienced bias or discrimination when you've spoken to a medical provider about your diet or CHF?
7. Can you describe an interaction you had with your medical provider that you think positively impacted your diet or CHF management?
8. Can you describe an interaction you had with your medical provider that you think negatively impacted your diet or CHF management?
9. What do you think would most support you in managing your diet and CHF?
10. Is there anything related to diet or CHF that would you like more information about or don't fully understand?
11. What advice would you give your medical provider about helping other people to managing their diet and CHF?