2-28-2024

Self-Management of Coronary Heart Disease Among Middle-Aged and Older Low-Income African Americans

TINA ALFRED-IYAMU
Walden University

Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral dissertation by

Tina Alfred-Iyamu

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Michael Schwab, Committee Chairperson, Public Health Faculty
Dr. Heba Athar, Committee Member, Public Health Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2024

Abstract

Self-Management of Coronary Heart Disease Among Middle-Aged and Older Low-Income African Americans

by

Tina Alfred-Iyamu

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Walden University

February 2024.

Abstract

Coronary heart disease (CHD) stands out as the predominant cardiovascular condition, exerting a significant toll on both mortality and morbidity. Notably, African Americans (AA) grapple with an alarmingly elevated incidence, prevalence, and mortality rate compared to other demographics within the United States. Extensive research underscores the potential for effective CHD management through self-management practices, though this is notably deficient. This qualitative, phenomenological study delves into the intricate lived experiences surrounding the self-management of CHD among low-income individuals in the middle-aged and older AA demographic. My theoretical framework was the Health Belief Model. Impressively, the study participants exhibited a profound understanding of their condition and an adept comprehension of the requisite healthy lifestyle recommendations essential for the effective self-management of CHD and its potential repercussions and benefits. However, many impediments were identified, such as career obligations, a paucity of robust support systems, and the pervasive influence of emotional stress: all these were identified as key contributors to an inconsistent adherence to healthy lifestyle practices. These findings hold promise to catalyze positive societal transformation to mitigate the burden of CHD and comorbidity via public health policies and initiatives that cultivate healthy lifestyle practices through targeted educational campaigns and support groups that function as motivational support groups, proactively connecting with and persuading patients to participate, especially within low-income AA communities.

Self-Management of Coronary Heart Disease Among Middle-Aged and Older Low-Income African Americans

by

Tina Alfred-Iyamu

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health

Walden University

February 2024.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

In this study, I investigated the self-management of coronary heart disease (CHD) among low-income middle-aged and older African Americans (AAs) who were between the ages of 40 and 80. In the United States, CHD accounts for 600,000 deaths annually (J. Brown et al., 2021). Self-management of CHD is an effective strategy in managing chronic conditions, but compliance is an issue in low-income marginalized and minoritized populations such as older low-income AA adults (Elgazzar et al., 2020; Hardman et al., 2020). The lack of proper self-management of CHD among middle-aged and older low-income AA adults may be due to health inequalities, socioeconomic status, and discrimination (Elgazzar et al., 2020; Hardman et al., 2020). However, CHD can be adequately managed through preventive therapies, healthy lifestyles, and behaviors, as well as health promotional interventions and educational awareness with sustainable solutions (Li et al., 2020; Nyberg et al., 2020).

The focus of this study was low-income, middle-aged, and older AA living in the city of Katy, Texas, with a population of 24,005. In this area, the AA population constituted approximately 7.9% of the total population compared to the European American population, which was 76% (United States Census Bureau, 2021). To recruit the participants, I placed flyers at low-income clinics and health centers. I sought to analyze and understand the attitudes and behaviors associated with the target population's adherence or lack thereof to strategic healthy behaviors and lifestyles to manage CHD.

For this qualitative study, I adopted the interpretative phenomenological approach and the health belief model (HBM) to examine the lived experiences of participants. The

findings of this study may be beneficial to health practitioners, educators, public health officials, and policy makers. Using the findings, they may be able to facilitate health promotional interventions featuring decision-aid mechanisms and resources that help individuals to sustain long-term adherence to healthy lifestyles (see Li et al., 2020; Nyberg et al., 2020).

Background

Chronic disease is the most prevalent and costly health condition in the United States. It causes physical and mental functional restrictions for individuals, affects their health and quality of life, and requires ongoing monitoring or treatment (Raghupathi & Raghupathi, 2018). The most common chronic diseases are hypertension, stroke, cardiovascular disease (CVD), respiratory diseases, arthritis, obesity, cancer, and type 2 diabetes mellitus (T2DM). These affect over 130 million of all Americans of whom approximately 42% have comorbidity (Raghupathi & Raghupathi, 2018; Rahman et al., 2019). These diseases result in hospitalization, long-term disability, reduced quality of life, and death (Raghupathi & Raghupathi, 2018; Rahman et al., 2019). They also lead to an economic burden in terms of treatment, prevention, and loss of workforce productivity. The treatment of chronic diseases accounts for over 80% of health care costs in the United States (Rahman et al., 2019; Reynolds, 2018). This amounts to over $300 billion in direct medical costs, with another $191 billion due to decreased productivity, disruption of workforce patterns, and absenteeism (Hayes & Gillian, 2020; Rahman et al., 2019).

CHD is the most common form of CVD and includes coronary artery disease, cerebrovascular disease, peripheral artery disease, and aortic atherosclerosis (Olvera Lopez et al., 2021). In affluent countries, CHD is a primary cause of death and disability in individuals older than 35 years (Sanchis-Gomar et al., 2016). It can be asymptomatic but is characterized by atherosclerosis in coronary arteries, which is the building up of plaque in the main arteries that supply the heart muscle resulting in a decreased blood flow (Salehi et al., 2021; Shreya et al., 2021). The plaque buildup may calcify and rupture over a period, which may result in thrombosis of the coronary arteries (usually atherosclerosis; Salehi et al., 2021; Shreya et al., 2021). The initial clinical manifestation of CHD in patients is angina or the diagnoses of angina pectoris, which is associated with worse clinical outcomes regardless of the presence of myocardial ischemia on noninvasive testing (J. Brown et al., 2021; De Luca et al., 2018). CHD is a cause of significant cardiovascular events, and there is an equal susceptibility to CHD in men and women. Still, women tend to have a better risk profile at a younger age and vice-versa in old age (Shreya et al., 2021). However, CHD is caused by atheromatous blockage of coronary vessels leading to acute coronary events that often occur when a plaque ruptures and a thrombus forms, and most patients tend to remain asymptomatic (Shreya et al., 2021). CHD is considered a complex disease, and early diagnosis is critical as the disease can be managed through specific interventions (Sanchis-Gomar et al., 2016; Shreya et al., 2021).

CHD is the single leading cause of mortality in the United States, and its risk factors include genetic, social, environmental, and behavioral factors with much focus

placed on lifestyle-related activities such as cigarette smoking, unhealthy diet, physical inactivity, and alcohol abuse (Ghaemian et al., 2020; Hamad et al., 2020). Many studies have suggested that adopting and adhering to healthy lifestyles and behaviors may help combat, manage, and minimize the risk of most chronic diseases including CHD, resulting in an enhanced life expectancy, quality of life, and well-being, especially among vulnerable populations like middle-aged and older adults (Li et al., 2020; Nyberg et al., 2020; Tian & Tein, 2020). Middle-aged and older AA adults are at a significantly higher risk than European Americans for many CVDs, especially hypertension, stroke, and heart failure (Egan et al., 2015; Rimando, 2015). The estimated mortality rate for AAs was 212 per 100,000 persons in 2018, compared with 168.1 per 100,000 for European Americans; among both AAs and European Americans, men are affected at a higher rate than women, according to government data (Office of Minority Health, U.S. Department of Health and Human Services, 2022). The age-adjusted percentage of persons 18 years of age and over with high blood pressure was 32.8% for AAs and 24% for European Americans in 2018.

In the United States, AAs have a higher prevalence of hypertension, and several factors contribute significantly to the barriers to disease management (Egan et al., 2015; Rimando, 2015). AAs have an earlier onset of several traditional cardiovascular risk factors, and the rates for heart disease and stroke for AA are high, with 20% higher for heart disease and 40% higher for stroke, compared to rates in European Americans. This may be a result of underlying genetic mechanisms as well as a lack of resources to adhere to or maintain healthy lifestyles due to racial inequalities and marginalization (Mensah, 2018; Saab et al., 2015). Some studies have reported higher CVD deaths in patients with

cancer and comorbid CVD in cardio-oncology (Modi et al., 2022; Thotamgari et al., 2022). The studies revealed that AA patients in cardio-oncology who received the human epidermal growth factor receptor 2- **(**HER2-) directed therapies showed higher rates of cardiotoxicity and resultant incomplete adjuvant HER2-targeted therapy than European American patients (Modi et al., 2022; Thotamgari et al., 2022). The higher rates may be a result of a lack of health insurance, or the presence of a less favorable insurance status like Medicaid, as AAs are more likely to be uninsured during adulthood than European Americans and may delay care due to higher costs of care (Modi et al., 2022; Thotamgari et al., 2022).

However, in recent years, the Centers of Medicare & Medicaid Services (2021) have offered more benefits and resources to assist individuals in enhancing their health and promoting healthy living through home health care services, telehealth, physical and occupational therapy, outreach, and educational services. However, individuals may lack the awareness of these additional benefits and resources or, more so, not adequately utilize them to sustain healthy lifestyles that may assist in managing CHD conditions, according to the agency. CHD requires a lengthy self-management process. The expanded benefits included in the Medicare and Medicaid program may assist recipients in accessing or using them and other resources.

Data from the U.S. Department of Health and Human Services' Office of Minority Health show a racial disparity in the percentage of U.S. adults aged 18 and over with hypertension whose blood pressure was estimated to be under control between 2015 and 2016 (44.6% for AAs compared to 50.8% for European Americans). These data

reinforce the need to foster health promotion for the management, mitigation, and prevention of such chronic diseases among middle-aged and older populations. Such populations may lack any awareness of, or fail to adhere to, sustainable healthy techniques, lifestyles, or behaviors that may reduce and manage these conditions (Li et al., 2020; Nyberg et al., 2020).

Research Problem

The aging of the U.S. population has resulted in an increased prevalence of CHD as well as increased health care costs, particularly among middle-aged and older low-income AAs (Li et al., 2020). For this population, CHD requires complex and long-term management including a long period of supervision, observation, or care because of slow progression of the disease (Benkel et al., 2022). Early diagnosis of high-risk patients is critical as specific interventions may significantly minimize clinical events, including death (Shreya et al., 2021). Noninvasive screening for early diagnosis among asymptomatic people allows for appropriate preventative actions to decrease CHD-related mortality and morbidity (J. Brown et al., 2021; Shreya et al., 2021). Furthermore, CHD among the aging population may be adequately managed through healthy lifestyles and behaviors and early awareness and access to high quality management (Li et al., 2020; Nyberg et al., 2020; Tian & Tein, 2020). However, the self-management of CHD among low-income AA adults is inconsistent and may be attributed to socioeconomic status and health inequalities, which are common among marginalized and minoritized populations (Elgazzar et al., 2020; Hamad et al., 2020; Hardman et al., 2020; Janevic et al., 2022). Limited studies have been conducted on the self-management of CHD among

middle-aged and older low-income AA adults and on the long-term adherence to healthy behaviors and lifestyles among AAs living in less-affluent areas, irrespective of their associated experiences of racism and discrimination (Hamad et al., 2020; Hardman et al., 2020). To better serve them, it is critical to understand the perspective of less affluent populations or ethnic groups (Hamad et al., 2020).

Purpose of the Study

AAs often have a significantly higher risk of morbidity and mortality for chronic diseases due to multiple contributors, including biological (underlying genetic mechanisms) and clinical and nonclinical factors, such as the lack of resources to adhere to or maintain healthy lifestyles due to racial inequalities and marginalization (Briggs et al., 2020; J. Brown et al., 2021; Saab et al., 2015). Many studies suggest that community and neighborhood factors all play a significant role in the disparities seen in cardiovascular outcomes (J. Brown et al., 2021; Mensah, 2018). Such factors include joblessness, poverty, lack of availability of nutritious foods, limited neighborhood walkability, neighborhood violence, limited access to green spaces, low educational attainment, poor housing quality, environmental pollution, lack of social connectedness, other social and environmental determinants of health, and limited access to quality health care. In addition, CHD with or without comorbidity is continually ravaging the aging population of middle-aged and older adults, as 1 in 3 statistic is more pronounced among older adults with CHD experience comorbidity, especially AAs (J. Brown et al., 2021). Preventing or minimizing the impact of CHD in this population requires lifestyle changes (Ripe, 2018; Yu et al., 2018); however, adherence to lifestyle modifications is

often poor (Ripe, 2018). The reasons for this are not well understood, especially for older AAs, and this is the gap in the literature that this study was undertaken to address. The purpose of this research was to understand the attitudes and behaviors of middle-aged and older AAs with CHD regarding adherence to healthy behaviors recommended by health care workers.

Research Questions

I sought to answer two research questions (RQs):

RQ1: What are the lived experiences of low-income middle-aged and older AAs living in Katy, Texas, with managing CHD through lifestyle modifications?

RQ2: What are the recommendations to improve adherence to CHD management guidelines among low-income, middle-aged and older AAs living in Katy, Texas?

Theoretical and Conceptual Framework

The conceptual framework for the study was the HBM. The HBM approach was developed in the 1950s by social psychologists at the United States Public Health Service to better understand the wide-spread failure of screening programs for tuberculosis (Rosenstock et al., 1974). However, the reference entry for applying the HBM approach in this study was based on Beer and colleagues' (2012) exploration of the perceptions of malaria and bed-net use after a noticeable reduction in malaria incidence due to health promotion programs. HBM provides an ideal framework for communication research, with its constructs helping to explain and predict health-promoting behaviors (Luquis & Kensinger, 2019). The constructs of perceived seriousness, susceptibility, benefits, barriers, cues to action, and self-efficacy are helpful in explaining how a person takes

steps to change health behaviors (Luquis & Kensinger, 2019). The HBM was appropriate for the current study because it provided a means of understanding factors that influenced healthy behaviors in the participants, including their beliefs about barriers and benefits associated with behaviors (see Luquis & Kensinger, 2019). The HBM proposes that the perception of a personal health behavior threat may be influenced by three factors: specific health beliefs about vulnerability to a particular health threat, general health values of the interest and concern about health, and beliefs about the consequences of the health problem (Sheeran & Abraham, 1995).

However, Luquis and Kensinger (2019) clarified that risk susceptibility and severity are considered individual perceptions that affect the perception of illness and the importance of health to the individual's perceived susceptibility and severity. Thus, if an individual perceives a threat to their health, they are consecutively cued to action, and their perceived benefits outweigh the perceived barriers, and as such increases the likelihood to take-on preventive health action. The individual's perceived significance of managing CHD may be associated with initiating change initiatives to enhance their lifestyle by maintaining regular physical activity, making dietary changes, having adequate sleep, and quitting smoking and reducing alcohol consumption (Luquis & Kensinger, 2019).

Nature of the Study

In this qualitative phenomenological, cross-sectional study, I explored the lived experiences of AAs regarding adherence or lack of adherence to recommended healthy behaviors and lifestyles for managing CHD in Katy, Texas. I used the hermeneutic

phenomenological approach, also known as the interpretive phenomenological approach, which is designed to create detailed textual descriptions of experiencing phenomena using rich descriptive language and to present an in-depth understanding of the meaning of experiences through progressively layered reflection (Al-Raisi et al., 2020; Alsaigh & Coyne, 2021). The aim of this approach is to produce an account of lived experiences that is not based on preexisting theoretical preconceptions. It is a valuable methodology for examining complex, ambiguous, and emotionally laden issues (Smith & Osborn, 2015). The interpretative phenomenological approach was suitable for the current study as it is a qualitative approach that aims to provide detailed examinations of personal lived experiences and is considered the process of extracting and revealing hidden experiences without bracketing out the perspective of the investigator (Smith & Osborn, 2015). The cross-sectional study design was also appropriate because I aimed to analyze data from a population at a single point in time. A cross-sectional design is often used to measure the prevalence of health outcomes, understand determinants of health, and describe features of a population (Kesmodel, 2018).

The population for this study was low-income, middle-aged, and older AAs with CHD living in Katy, a city located in Fort Bend and Harris County, Texas. I sought to recruit an estimated 15 individuals aged 40–80 years who satisfied the inclusion and exclusion criteria. The participants were recruited by placing flyers in low-income clinics and health centers. I obtained informed consent from the selected participants. To collect data, I conducted a one-on-one telephone interview with each participant using open-ended questions. The questions were informed by the HBM approach that focuses on the

participant's lived experience of adherence to specific healthy lifestyles such as physical activity, nutritional foods, dietary changes, adequate sleep, smoking, and alcohol consumption and challenges encountered from associated social determinants of health (SDOH). Data collection continued until saturation was reached. To analyze and interpret the data, I used the hermeneutic phenomenological approach, which involved going back and forth between the parts and the whole data to understand the participants' lived experiences.

Definitions

Comorbidity: The concurrent presence of multiple chronic diseases in a patient (Raghupathi & Raghupathi, 2018).

Coronary heart disease (CHD): A chronic disease, also called "coronary artery disease," that involves the narrowing of the small blood vessels that supply blood and oxygen to the heart (Shreya et al., 2021).

Health belief model (HBM): An explanatory conceptual framework for predicting health related behavior in terms of specific belief patterns (Abraham & Sheeran, 2015).

Hermeneutic phenomenological approach: A phenomenological method for presenting a detailed understanding of the meaning of lived experience through the interpretation of language elements (Emiliussen et al., 2021).

Interpretive profiles: Interpretative description of experiential variations within and across participants (Oerther, 2021).

Life expectancy: The number of years a person may be expected to live (Luy et al., 2020).

Phenomenology: An aspect of philosophy that focuses on a situation or lived experience in question that is observed and explicating common and shared meanings (Neubauer et al., 2019).

Purposive sampling: A nonprobability sampling that entails intentional selection of participants from an overall sample based on the researcher's judgment of the prospective participants' ability to elucidate a specific phenomenon (Campbell et al., 2020).

Self-management: The day-to-day management and taking of responsibility for one's own health and behavior over the course of an illness or chronic conditions (Allegrante et al., 2019).

Trustworthiness: The extent to which one has confidence in the study's findings (McSweeney, 2021).

Scope and Delimitations

In the present study, I examined the experience of self-management of CHD, which entails healthy behaviors and lifestyles, among low-income, middle and older age AA adults with CHD. There was a need to investigate adherence to healthy behaviors and lifestyles for managing CHD among AAs; this specific group experiences higher incidence rates and poorer health outcomes and are at risk of morbidity and mortality for chronic diseases including CHD (J. Brown et al., 2021; Ellis et al., 2020). Compared to other racial groups like European Americans, AAs encounter higher rates of chronic diseases, with a 12% higher residential hazard of incident CVD, defined as angina, probable angina followed by revascularization, myocardial infarction, resuscitated

cardiac arrest, CHD death, stroke, or stroke death, with over 10.2 median years of follow-up (Mensah, 2018). Inadequate insurance coverage can also be seen as a contributing factor. For instance, European Americans had the highest health insurance coverage at 94.6% whereas AAs had 90.3% of insurance coverage in 2018 (D. C. Lee et al., 2021).

In contrast to the HBM, Pender's health promotion model proposes that unhealthy behaviors are based on social cognitive-perceptual factors, including perceived benefits, barriers, and self-efficacy, that affect individuals' engagement in health-promoting behaviors (Khodaveisi et al., 2017). The health promotion model is a competence-oriented model that focuses on personal competence, the attainment of higher levels of well-being, self-actualization, self-esteem of individuals, perceived control of health, and cues to action (Chen & Hsieh, 2021; Masters, 2015). The health promotion model may have been appropriate for this study because it identifies factors that influence health behaviors and change unhealthy behaviors to promote health (Chen & Hsieh, 2021), but it was not ideal when compared with the HBM. I concluded that the HBM was more suitable for this study because it is a theoretical health protective model that is used to guide health promotion and disease prevention programs as well as explain and predict individual changes in health behaviors (Green et al., 2020).

Limitations

There are some limitations acknowledged in the present study, which may be present in many behavioral and health care research fields. First, I relied on self-reported data from the study participants on lifestyle and behaviors. The reported data may not be completely accurate as some participants may have exaggerated their responses or

presented falsified experiences during data collection, resulting in response bias (where the participant exaggerates their response), recall bias and/or social-desirability bias (where the participants may not provide accurate answers or want to look good in their responses; Rosenman et al., 2011). Second, I collected and analyzed primary data; that is, I recruited participants and gathered firsthand data. This may have resulted in selection or sampling bias (where some members of a population were systematically more likely to be selected in a sample than others; Setia, 2016). Third, the use of a convenience sample was also a concern, as the sample may not be an appropriate representation or generalizable to the entire AA population in the United States because the data collected are from a small sample and a specific region.

To mitigate these challenges, I strove to ask the interview questions in an objective manner. In addition, I applied indirect questioning techniques while avoiding vaguely worded questions to minimize response bias, and I combined strategies from a variety of sampling strategies such as venue-based sampling and respondent-driven sampling to reduce selection bias (Hunt et al., 2011; Rosenman et al., 2011). Furthermore, adopting multiple strategies to manage and analyze the enormous amount of data collected. Strategies like face sheets that capture the interviewer's perceptions of the respondent provides a context for the interview, and coding that generates codes for systematic organization of the interview data minimizes the challenge of a vast amount of data (Hunt et al., 2011).

Significance

The present study holds significance because the aim was to understand the attitudes and behaviors associated with the target population's adherence to healthy behaviors and lifestyles for managing CHD. The study findings may benefit policy makers, health practitioners, educators, and public health organizations by providing knowledge they can use in planning health promotional interventions, developing decision-aid tools and resources to help with counseling, and formulating other strategies to improve long-term adherence (Li et al., 2020; Nyberg et al., 2020). AAs have a higher risk of morbidity and mortality of most chronic diseases due to their underlying genetic mechanisms and lack the resources to adhere to or maintain healthy lifestyles due to racial inequalities and marginalization (Saab et al., 2015). Hence, the research may influence the awareness of healthy behaviors and modifiable lifestyles, especially for middle-aged and older populations, which may facilitate improved quality of life, minimize the risk of developing comorbidities, reduce health care costs and burden, and extend disease-free life expectancy among AAs (Li et al., 2020). The development of public health policies and regulations may foster positive social change by encouraging healthy lifestyle behaviors and improving food and the physical environment; such changes may be conducive to the adoption of a healthy diet and lifestyle among AAs in less affluent communities (Nyberg et al., 2020).

Summary

In this study, I examined adherence to healthy lifestyles and behaviors for managing CHD among low-income middle-aged and older AAs. Understanding the

individual experience of middle-aged and older AAs in managing their CHD is critical in promoting educational awareness and adequate support for this population. Presenting sustainable solutions that promote healthy lifestyles and behaviors may improve long-term adherence and minimize comorbidity among middle-aged and older AAs (J. Brown et al., 2021). The present study may be beneficial in the planning of health interventions, development of decision-aid tools and resources to help with counseling, and formulation of other strategies to improve long-term adherence and minimize most chronic disease or comorbidity burdens among AAs. Finally, the results could be helpful to stakeholders in creating public health policies and regulations to strengthen and encourage healthy lifestyle behaviors among AAs (J. Brown et al., 2021; Nyberg et al., 2020).

Chapter 2: Literature Review

Background

Chronic diseases continue are widespread among the aging population of United States, with 1 in 3 older U.S. adults having a chronic illness or comorbidity (Hamad et al., 2020). Among chronic diseases, CHD is one of the most expensive and leading causes of mortality and disability in the United States, with adverse impacts on an individual's health, well-being, and quality of life (Mensah, 2018; Raghupathi & Raghupathi, 2018). There are racial disparities for the disease. The male AA mortality rate for CVD in 2018 was 270.6 per 100,000 persons, and the female AA mortality rate was 168.6 per 100,000 persons, according to federal statistics (Office of Minority Health, U.S. Department of Health and Human Services, 2022). In contrast, male European Americans' mortality rate for CVD was 213.1 per 100,000 persons, and female European Americans' mortality rate was 130.7 per 100,000 persons in 2018.

Many researchers have found evidence that adhering to healthy behaviors and lifestyle substantially enhances overall life expectancy; improves the quality of life; and, most significantly, minimizes the risk of most chronic diseases, such as CVDs, cancer, and diabetes (Nyberg et al., 2020; Tian & Tein, 2020). CVDs are one of the leading causes of mortality in the United States. They include hypertension, CHD, peripheral artery disease, stroke, atrial fibrillation, and heart failure (Riegel et al., 2017). Multiple studies show that routinely engaging in positive self-care behaviors and having knowledge, skills, confidence, and motivation are paramount in the effective management of CVD (Riegel et al., 2017; Tian & Tein, 2020). However, such behaviors

compete with multiple individual barriers that are compounded by family and community influences (Riegel et al., 2017).

In the current study, I examined the attitudes and behaviors associated with adherence to strategic healthy behaviors and lifestyles that minimize and manage most chronic diseases among middle-aged and older AAs with CHD living in Texas. Chronic diseases are among the most prevalent and costly health conditions in the United States and are characterized by physical or mental health conditions that impact an individual's health, well-being, quality of life, and functional ability, requiring continuous management or treatment (Raghupathi & Raghupathi, 2018). Considering this, examining the adherence of middle-aged and older AAs with CHD to strategic healthy behaviors and lifestyles is important because it may yield knowledge that stakeholders can use to improve individuals' well-being and health.

Literature Search Strategy

The literature review search strategy focused on health promotional interventions used to manage chronic conditions and comorbidity through healthy lifestyles and behaviors among various populations. The search terms included *chronic diseases, coronary heart disease, cardiovascular disease management, coronary heart disease self-management, health promotion, middle-aged and older people, prevention, promotional behaviors and healthy lifestyles, health promotional interventions, diabetes,* and *diabetes management.* The Walden University Library databases used included the Walden Library Books, PubMed, CINAHL Plus with Full Text, MEDLINE with Full Text, Sage, Science Direct, and PLOS. However, the search criteria were further

narrowed to literature reviews dating from 2017 to the present and concerning the management and self-management of most long-term diseases, particularly CHD and CVD.

Theoretical and Conceptual Framework

The theories and concepts that informed the current study were the HBM approach and the hermeneutic phenomenological approach. The HBM is an ideal explanatory framework for communication research, which posits that messages communicated achieve optimal behavior change if they successfully target perceived barriers, benefits, self-efficacy, and threats (Jones et al., 2015). The HBM is a psychosocial model designed to assist in understanding health behaviors that prevent or detect diseases, which is why it is among the most used theoretical frameworks for understanding health behavior (Herrmann et al., 2018). According to Luquis and Kensinger, (2019), the HBM is a widely recognized and applied conceptual framework of health behavior as it is an extensively researched model of health behavior and attempts to explain health-related behavior in terms of specific belief patterns. When individuals perceive high susceptibility and are serious, they take action to prevent the disease as long as the individual senses the capability to engage in the behavior and overcome the barriers. The HBM may be used to describe and predict health behaviors, as it focuses on intrapersonal factors, including risk-related beliefs that influence individuals' health-related decision-making (Herrmann et al., 2018).

Jones et al. (2015) explained that the HBM includes six constructs that predict health behavior to include risk susceptibility, risk severity, action benefits, barriers to

action, self-efficacy, and cues to action, and the integration of all constructs causes a response that often manifests itself in the likelihood of that behavior occurring. I based the current study on these six constructs. Use of the HBM helps a researcher to understand the perceptions about susceptibility, benefits, barriers, and self-efficacy, which influences health behavior and causes a response that often manifests itself into the likelihood of that behavior occurring such as the lack of adherence to a healthy lifestyle even with the perceived threat of CHD or comorbidity (Jones et al., 2015; Luquis & Kensinger, 2019). I used the HBM as a systematic and theoretical framework to discover participants' beliefs and predict the likelihood of health-promoting behaviors regarding actions to properly manage CHD or improve their lifestyles as long as the health benefits outweigh the barriers (see Luquis & Kensinger, 2019).

The phenomenological approach is an interpretive process for understanding the deeper layer of lived experiences and phenomena affecting an individual's life without bracketing out the investigator's perspective (Emiliussen et al., 2021; Neubauer et al., 2019). Phenomenology is a branch of philosophy that focuses on the description and analysis of phenomena both in terms of "what" was experienced and "how" it was experienced by exploring it from the perspective of those who have experienced it (Emiliussen et al., 2021; Neubauer et al., 2019). However, phenomenology is also considered a philosophical movement that centers on immediate investigation and involves the description of the consciously experienced phenomena without theories about their causal explanation. It is free from unexamined preconceptions and presuppositions (Al-Raisi et al., 2020). Phenomenology is a method that researchers can

use to investigate, explore, and attain a better understanding of an individual's lived experience and reveal the unknown aspects of a phenomenon (Al-Raisi et al., 2020; Alsaigh & Coyne, 2021). Phenomenological research is uniquely adopted by qualitative researchers and is based on the whole lived experience rather than parts, obtained from the descriptions of lived experience in first-person accounts (Emiliussen et al., 2021; Neubauer et al., 2019).

Moreover, phenomenological research allows researchers to explore in-depth questions and understand an individual's experience, which is necessary to rationalize their behaviors and actions toward their disease's treatments or care (Al-Raisi et al., 2020; Alsaigh & Coyne, 2021). Phenomenological research can be applied in two forms: hermeneutic phenomenological (interpretive) and transcendental phenomenological (descriptive; Emiliussen et al., 2021; Neubauer et al., 2019). The transcendental phenomenological is credited to Edmond Husserl; researchers use this approach to access the participants' experience of the phenomenon, entity, intentional object, or event as it appears in consciousness reflectively, without resorting to categorization on conceptualization (Emiliussen et al., 2021; Neubauer et al., 2019). The approach brings no definitions, expectations, assumptions, or hypotheses to the study but instead brackets the researcher and uses participants' experiences to understand the phenomenon's essence (Emiliussen et al., 2021; Neubauer et al., 2019). The hermeneutics of interpretive phenomenological also known as modern hermeneutics and is credited to Martin Heidegger and Hans-Georg Gadamer as the primary founders. The approach pushes beyond a descriptive understanding since it is an interpretive process but is derived from

the descriptive approach (al-Raisi et al., 2020; Alsaigh & Coyne, 2021). However, hermeneutics means seeking understanding and knowledge through interpreting language elements, such as words or texts, and phenomenology is the study of lived experience and explicating common and shared meanings (Al-Raisi et al., 2020). Thus, hermeneutics phenomenological may be appropriate for the current study as it interprets and understands the deeper layer of lived experiences and phenomena through the individual's life without freezing out the investigator's perspective (Emiliussen et al., 2021; Neubauer et al., 2019).

Literature Review Related to Key Variables and/or Concepts.

The literature review for this study outlines healthy lifestyles associated with quality of life, life expectancy, literacy, management, and related factors, as well as social determinants of healthy lifestyles for middle-aged and older populations to effectively manage most chronic diseases. However, the literature review covered multiple research studies that explored the interrelation between healthy lifestyles or behaviors, quality of life, and life expectancy for adult, middle-aged and older populations, which may be pivotal to effectively managing most chronic diseases, reducing the risk of developing comorbidity and increasing disease-free life expectancy.

Prevalence of Coronary Heart Disease

In the United States, the percentage of ethnic minorities with CHD is projected to grow rapidly, and AAs are expected to see a 42% population increase between 2014 and 2060 (Elgazzar et al., 2020). Some studies have reported that the prevalence of CHD in individuals aged 20–59 years fell from 42% to 32% in men and from 29% to 16% in

women, with no significant change in the prevalence of people aged 60 years and above (Sanchis-Gomar et al., 2016). Sanchis-Gomar and his colleagues also reported that the lifetime risk of developing CHD among individuals aged 40 years was 49% in men and 32% in women while for individuals aged 70 years, the lifetime risk was 35% in men and 24% in women (Sanchis-Gomar et al., 2016). In the United States, AAs have a higher mortality rate and prevalence of CHD and hypertension with an adjusted death rate of 212 deaths per 100,000 U.S standard population compared to European Americans with an adjusted death rate of 168 deaths per 100,000 U.S standard population (J. Brown et al., 2021; Murphy et al., 2021). Although CHD mortality has progressively declined over the years in developed countries, which is attributed to primary and secondary preventive strategies and sustaining health promotion programs (Ghaemian et al., 2020). The declines are minimal among AAs compared to European Americans and the illness causes approximately one-third of all mortality in middle-aged to older adults (Carnethon et al., 2017; Ghaemian et al., 2020). Therefore, the prevalence and cost of chronic disease in the United States may continue to grow and tremendously impact individuals' health and quality of life in the United States and worldwide (Rahman et al., 2019; Reynolds, 2018). The cost for care for chronic condition is expected to grow further due to an aging population which comprises middle-aged and older people and has a high prevalence of the diseases with ramifications of increased health care costs, shorter life expectancy, and deteriorating health and quality of life (Li et al., 2020). Thus, most individuals with CHD may have a shorter life expectancy than their peers without chronic conditions, as

estimates of the loss of life years due to chronic diseases range from 7.5 to 20 years (Li et al., 2020).

Risk Factors for Coronary Heart Disease

The prevalence of heart disease and hypertension for AAs is high with an estimate of 57.1% of male and female individuals, 18 years and over, compared to 43.6% of European Americans which may be a result of underlying genetic mechanisms as well as a lack of the resources to adhere to or maintain healthy lifestyles due to racial inequalities and marginalization (Mensah, 2018; Ostchega et al., 2020; Saab et al., 2015). Physical risk factors are hypertension, a high cholesterol rate, and obesity (Zhao et al., 2017). Behavioral risk factors for CHD include tobacco smoking, unhealthy diet, physical inactivity, heavy alcohol consumption, and stress (Zhao et al., 2017; Li et al., 2020; Tian & Tein, 2020). Insufficient or poor-quality sleep, and untreated sleep disorders also contribute to the burden of CHD (J. Brown et al., 2021; Mensah, 2018).

Early diagnosis is critical in the proper management of the condition and the coronary artery calcium (CAC) score is an effective screening tool for CHD. CAC scan is used to determine the amount of calcium in the coronary arteries using cardiac computed tomography and to predict heart disease risk (Cherukuri et al., 2021; Shreya et al., 2021). However, coronary calcium is exclusively the outcome of coronary atherosclerosis, and the CAC score is a practical screening tool and a reliable indicator of CHD (Cherukuri et al., 2021; Shreya et al., 2021). CAC scoring for early diagnosis of CHD may foster the treatment and prevention of deaths in asymptomatic individuals at immediate risk (Shreya et al., 2021). Additionally, the CAC score is an accurate marker of CHD and a

readily accessible, reliable, and effective tool for assessing the risk of major cardiac events, predicting heart disease risk, and assisting in cardiovascular risk assessment and clinical decision-making for primary prevention interventions (Cherukuri et al., 2021; Shreya et al., 2021). Individuals can effectively manage CHD through preventive therapies, health promotional interventions and educational awareness to improve quality of life and health status (Nyberg et al., 2020). The decline in CHD mortality is associated with both primary and secondary preventive strategies including sustaining health promotion programs (Ghaemian et al., 2020; Li et al., 2020; Tian & Tein, 2020).

Treatment and Self-Management of Coronary Heart Disease

CHD self-management improves heart function and minimizes CHD symptoms, including any recurring angina symptoms through self-efficacy and medication adherence to minimize patients' risk of morbidity and mortality (Dale et al., 2014; Egan et al., 2015). However, self-management requires maintaining a healthy lifestyle including: quitting smoking, exercising, eating a balanced diet, no more than moderate alcohol consumption and adhering to prescribed medication (Dale et al., 2014). CHD self-management interventions and programs are also extremely beneficial since they not only minimize CHD progression, but also improve the quality of life and life expectancy (Dale et al., 2014).

Healthy Lifestyles That Reduce the Risk of Coronary Heart Disease

Diaz-Gutierrez and colleagues (2019) reported a positive impact of adopting a healthy lifestyle on hypertension risk. They explained that adopting a healthy lifestyle minimizes the risk of developing CHD. They conducted a prospective cohort study called

the SUN project from 1999 to 2014, 10.2 years of follow-up with 14,057 subject participants initially free of hypertension (Diaz-Gutierrez et al., 2019). The study's authors concluded that a healthy-lifestyle score that includes the six simple healthy habits was longitudinally and linearly associated with a substantially reduced risk of hypertension and identified healthy lifestyle influences on hypertension. Diaz-Gutierrez and colleagues suggested that many healthy lifestyle factors were monotonically associated with a substantially lower risk of hypertension, complex cardiovascular events, and incident hypertension. Their findings may benefit health care professionals in promoting the prevention of hypertension through lifestyle modification and empowering patients.

Cao and colleagues (2021) conducted a prospective, population-based cohort study that investigated the role of a healthy lifestyle in the transition from a healthy status to the development of cancer and subsequent CVD and T2DM among long-term cancer survivors. They reported that a healthy lifestyle is associated with a lower risk of developing CVD and T2DM (Cao et al., 2021). They used a cohort of 397,136 subject participants in the general population and a cancer-prevalent cohort of 35,564 patients with cancer, 40 years and older and free of CVD and T2DM. The study's authors surmised a more significant beneficial effect of healthy lifestyle practices on the risk of incident cancer and transition to CVD and T2DM, which was consistent with previous studies. Cao and colleagues suggested that lifestyle factors are significant contributing factors in managing most chronic diseases and that behavioral interventions addressing modifiable lifestyle risk factors like alcohol intake, smoking, physical activity, sleep

duration, and dietary pattern may result in improved outcomes in patients with cancer. The authors' findings may contribute strong evidence for the importance of a healthy lifestyle for lowering the risk of T2D in patients with cancer.

Benefits of CHD Self-Management and Associated Behaviors

Increased mortality rates due to heart diseases including CHD, cause approximately 650,000 deaths annually and a cost of over $200 billion in the United States (Nguyen et al., 2021). Hence, self-management support, interventions and strategies for behavior change may be critical in addressing the medical, physical, emotional, and social challenges associated with low-income individuals with CHD (Hardman et al., 2020). Various studies highlight the importance and advantages of adhering to self-management activities that manage CHD among middle-aged and older populations as it focusses on prevention and management (Huynh-Hohnbaum et al., 2016; Schaffler et al., 2018). One of the best preventive management strategies that manage CHD is self-management care and it can reduce hospitalization, empowering patients and better behavioral health (Huynh-Hohnbaum et al., 2016; Schaffler et al., 2018). The healthy practices associated with self-management are crucial in the management of CHD as it minimizes the risk of adverse outcomes as well as comorbidities. Thus, it is essential to stimulate patient activation to adopt health-related behavior within the context of knowledge, skills, and confidence in managing CHD (Hardman et al., 2020).

Huynh-Hohnbaum and colleagues (2016) analyzed how self-management may decrease negative risk behaviors in older adults, decrease engagement in negative dietary

behaviors and low physical activity. They assessed the adherence for heart disease prevention and recommendations, negative health behaviors and self-management in a quantitative study with secondary data from the 2011-2012 California Health Interview Survey (CHIS) with subject participants of 65 years and older. The study's authors concluded that self-monitoring of health is critical to overall health and individuals without a disease management plan and with less self-efficacy are more likely to have low physical activity and negative dietary behaviors. Huynh-Hohnbaum and colleagues reported in his study that self-efficacy was effective in self-management and that adherence of self-management plans of physical activity, positive dietary behaviors, and reduction of smoking and binge drinking, is effective in reducing both mortality and hospitalization rates among individuals with chronic diseases such as CHD. They also highlighted the significance of self-efficacy on patient health management as well as self-management education and explained that AAs were more likely to engage in negative dietary behaviors compared to European Americans as some ethnic groups were more prone to sustaining dietary behaviors than others. The author's findings may have implications for clinical practice and future research as well as benefit health care professionals in promoting the prevention of CHD through self-management care, and empowering patients, to take an active role in their care.

Improved Quality of Life. A recent study by Chudasama and colleagues (2020) strengthens the correlation between healthy lifestyles, quality of life and life expectancy. The authors examined the associations between individual risk factors, healthy lifestyles and life expectancy in a longitudinal study of 480,940 subject participants aged 38 to 73

years from the UK Biobank selected across England, Wales, and Scotland; approximately 20% had multimorbidity. The authors computed each healthy lifestyle factor's weighted healthy lifestyle score using a flexible parametric Royston-Parmar proportion-hazards model that included all four lifestyle factors and conducted four sensitivity analyses. The findings demonstrated that life expectancy rose as the level of a healthy lifestyle increased and confirmed that not all lifestyle risk factors are equal, and most of the reduction in life expectancy was related to smoking. Survival rate for individuals with multimorbidity and engaging in a healthier lifestyle were up to 6.3 years longer for men and 7.6 years for women. This study suggests that not all lifestyle risk factors are equally correlated with life expectancy but engaging in a healthy lifestyle could significantly improve quality of life regardless of multimorbidity.

Li and his colleagues (2020) have suggested enhancing public policies that promote healthy foods and physical environments based on their recent prospective cohort study which showed the clustering effect of lifestyle-related risk factors on life expectancy with and without chronic diseases. These authors examined the association between lifestyle and life expectancy among UK health care professionals free from major chronic diseases. Li and his colleagues used data from up to 34 years of follow-up in the Nurses' Health Study and 28 years of follow-up in the Health Professions Follow-up Study. The authors of the study used 73,196 female nurse participants aged 30 to 55 years from the Nurses' Health Study between 1980 to 2014 and 38,366 male health care professionals aged 40 – 75 years from the Health Professions Follow-up Study between 1986 and 2014. The data were collected by self-reported questionnaires that provided

detailed data on medical history, lifestyle, and other health-related variables, including diet, exercise, smoking status, and other factors. A low-risk lifestyle at age 50 was associated with a longer life expectancy free of major chronic diseases with 7.6 years in men and 10 years in women compared with participants with no low-risk lifestyle factors. Participants that adhered to all four low risk lifestyle factors had 9.5 years longer life expectancy free of the major chronic diseases than those with none of the factors. The author's findings are consistent with previous studies that estimated the individual or clustering effect of lifestyle-related risk factors on life expectancy with and without chronic diseases. Li and his colleagues suggested that promoting healthy lifestyles may reduce health care burdens by lowering the risk of developing multiple chronic diseases and increasing disease-free life expectancy. The study may be valuable to the current study as it suggests that promoting healthy lifestyles may reduce health care burdens by lowering the risk of developing multiple chronic diseases and an increased disease-free life expectancy.

Easier Self-Management of Chronic Conditions. Many studies surmise that adopting a healthy lifestyle is related to managing chronic illnesses as well as minimizing the risk of developing comorbidities. Adverse outcomes in chronic illnesses are commonly associated with poor self-care or lack of adherence to healthy lifestyles. G. Liu and colleagues (2018) reported that adherence to healthy lifestyle is associated with a substantially minimized risk of CVD incidence and CVD mortality among adults with T2DM. The authors of the study examined the associations of an overall healthy lifestyle, defined by eating a high-quality diet, non-smoking, physical activity, and alcohol in

moderation, with the risk of developing CVD and CVD mortality among adults with T2DM in two extensive prospective cohort studies with 11,527 subject participants. The study's authors collected data during an average of 13.3 years of follow-up, and the subject participants were repeatedly assessed every 2 to 4 years on their diet and lifestyle factors before and after T2DM diagnosis. Liu and colleagues concluded that more significant improvements in lifestyle factors from pre- to post-diabetes diagnosis were associated with a lower risk of CVD incidence and mortality and suggested that adherence to a proper diet and lifestyle after a diabetes diagnosis is associated with a substantially lower risk of CVD incidence and CVD mortality among adults with T2DM. The authors' study demonstrates adopting a healthy lifestyle to minimize the subsequent burden of cardiovascular complications in patients with T2DM.

However, for many chronically ill patients, self-management of their disease may be difficult adhering to, but pivotal in sustaining adequate management of chronic diseases. Freisling and colleagues (2020) suggested that healthy lifestyle behaviors were strongly inversely associated with the risk of cancer and cardiometabolic diseases. They investigated the associations between five lifestyle factors and incident multimorbidity of cancer and cardiometabolic diseases in a prospective cohort study with 291,778 subject participants from seven different European countries aged 43 to 58 years. The subjects were free of cancer, CVD, and T2DM. Freising and colleagues concluded that healthy lifestyles were strongly inversely associated with multimorbidity and that prior to the first chronic disease, healthy lifestyles may contribute to a favorable prognosis of these diseases by reducing the risk of multimorbidity. However, the author's findings may

facilitate strong support for public health recommendations to adhere to multiple healthy lifestyle factors.

Improved Health Status. In recent years, adopting a healthy lifestyle has received tremendous attention and commended for managing chronic diseases, especially CVDs, as well as to improve health status (Tian & Tien, 2020). Tian and Tien (2020) argued that regular exercise, relaxation, and a reduction in alcohol and tobacco consumption improve health status. Tian and Tien explored the relationship between health behavior clusters and health status among middle-aged and older adults with chronic diseases at the tertiary level in Taiwan. The authors conducted a cross-sectional study with 2,103 subject participants from the 2005 and 2009 Taiwan National Health Interview Survey (NHIS) aged 40 years and above with hypertension, diabetes, or hyperlipidemia and those who reported having drinking or smoking habits. They used secondary data obtained through a survey that provides detailed data on personal health conditions and health-related behaviors, such as lifestyle changes that improve or maintain the health status of individuals with chronic diseases. The study's authors used latent class analysis (LCA) to identify heterogeneous groups of health behaviors and explored whether lifestyle changes can benefit the health status of those with chronic conditions because the adopted survey questions investigated behavioral changes over time. The authors' findings suggest that individuals in classes other than the all-controlled class all reported poor health statuses and showed a significant magnitude of the coefficient estimates for individuals who reported their health status as poor or very poor for the least-controlled class. Tian and Tien also recommended that adopting health

promotion strategies that encourage engagement in health behaviors enhances and manages the health and well-being or chronic disease statuses of middle-aged and older adults.

Higher Life Expectancy. Lifestyle modification is highly encouraged to manage the risk of most chronic diseases as some studies focus on the related behavioral risk factors including Zaninotto and colleagues (2020), as they investigated the co-occurrence of four behavioral risk factors (alcohol consumption, smoking, physical inactivity, and obesity), associated with disability-free and chronic disease-free life expectancy. These authors conducted a longitudinal study with data from two prospective cohort studies of aging: the English Longitudinal Study of Ageing (ELSA) in England and the Health and Retirement Study (HRS) in the USA, and the data files were from 2002/2003 to 2012/2013. Self-reported data was used of 17,351 subject participants from HRS and 10,388 from ELSA, all aged 50 years and above, with a follow-up of over 10 years from 2002 to 2013. They analyzed the data using multistate life table models to estimate total life expectancy, disability-free and chronic disease-free life expectancy. Zaninotti and colleagues found that life expectancy without chronic disease was much shorter in the US study than in the English study and that the presence of unhealthy behavioral risk factors reduced substantially the number of remaining years of life without disabilities and chronic conditions. Their findings showed that clustered behavioral risk factors were associated with shorter life expectancy and shorter healthy life expectancy and suggested that reducing smoking, obesity, and increasing physical activity among older people could potentially lead to longer lives and healthier lives.

Nyberg and colleagues (2020) also contributed to the association between a healthy lifestyle and the number of disease-free life-years as they explored another prospective study that examined the association between a healthy lifestyle and the number of disease-free life-years. The authors of the study quantified the extent to which lifestyle factors are associated with the number of disease-free life-years as indexed by the age at onset of the first severe chronic disease (Nyberg et al., 2020). These authors conducted a prospective multicohort study of 12 European cohorts from the Individual-Participant-Data Meta-Analysis in Working Populations Consortium. They used 116,043 subject participants aged 40 to 75 years, devoid of major noncommunicable disease at baseline from August 7, 1991, to May 31, 2006. The data collected included information on sex, age, socioeconomic status, lifestyle factors such as weight, height, smoking, physical activity, and alcohol consumption, and a follow-up for chronic diseases. The authors' findings showed a high overall healthy lifestyle score, and various lifestyle profiles characterized with significant gains in years lived without major noncommunicable diseases between ages 40 and 75 years in both sexes.

Determinants of Healthy Behaviors

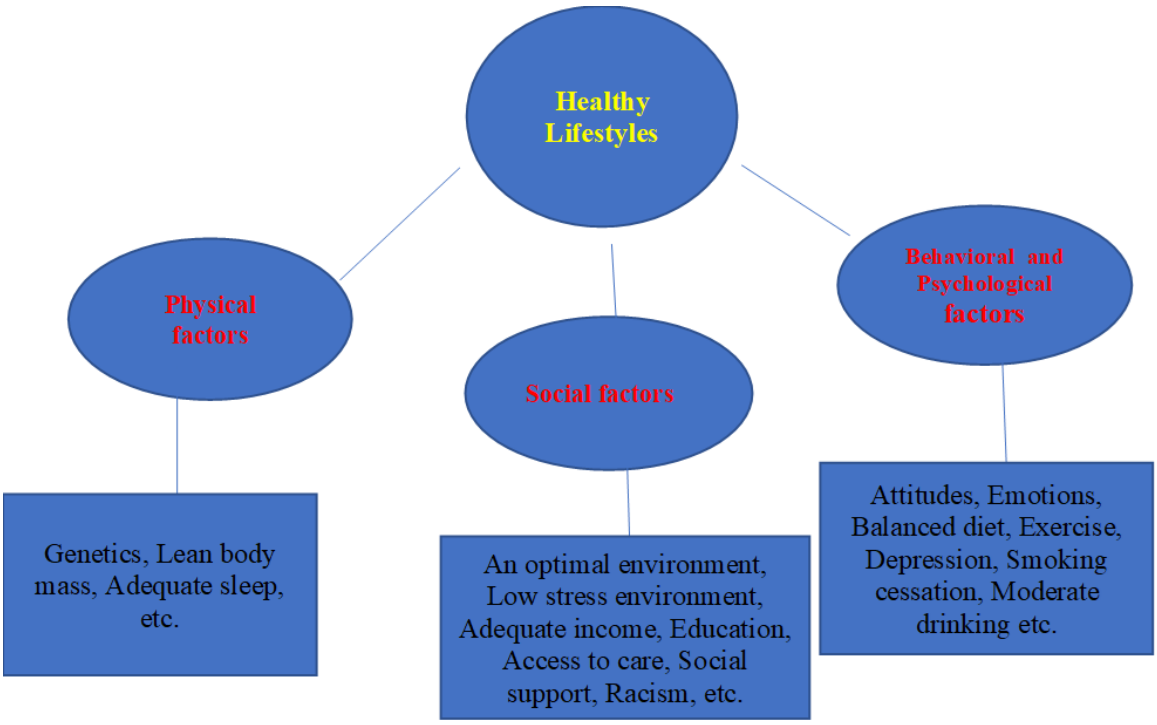
Health behaviors are overt behavioral patterns, actions and habits associated with health maintenance, health restoration and health improvement (Conner & Norman, 2017). Some related factors associated with healthy lifestyle practices and behaviors include physical factors (genetics, lean body mass, adequate sleep, etc.), behavioral and psychological factors (exercise, a balanced diet, attitudes, emotions, smoking cessation, moderate drinking, etc.) and social factors (an adequate income, an optimal environment,

low stress environment, education, access to care, social support, racism etc.) (Ndejjo et al., 2022). These are schematized in Figure 1.

Many individual studies have confirmed that the burden of CHD and CVD may be avoided or managed through adherence to modifiable lifestyle factors such as not smoking, diet, and exercising daily among others (Chiuve et al., 2011; Chomistek et al., 2012; Chomistek et al., 2015; McCullough et al., 2002). For instance, Chiuve and colleagues concluded that majority of CHD events among adults may be preventable through adherence to healthy lifestyle practices to include, diet and exercise (Chiuve et al., 2006; Chiuve et al., 2008; Chiuve et al., 2011; Chiuve et al., 2012). Likewise, McCullough and colleagues have originally established that primordial prevention through consistent adherence to dietary guidance and a healthy lifestyle may substantially lower the burden of chronic diseases and CHD (McCullough et al., 2000; McCullough et al., 2002; McCullough et al., 2000). The pattern can be observed in many other studies confirming that healthy habits and practices are crucial in the management of CHDs and CVDs. The illustration below shows the factors related to healthy behaviors that may be beneficial or cause challenges to maintaining positive practices and behaviors.

Figure 1

A Conceptual Framework Describing the Associated Factors of Healthy Lifestyles



Note. Adapted from Levine et al., 2021; Ndejjo et al., 2022.

Behavioral Determinants of Healthy Behaviors

A health-improving lifestyle that maintains and enhances health and well-being has multiple dimensions. Siboni, Khatooni and Atashi, (2018), revealed that taking part in physical activities, such as diet and exercise, plays an imperative role in enhancing one's health status. The authors presented some valuable insight on health-promoting behaviors and its related factors as they evaluated the health-promoting behaviors in individuals with chronic diseases and their related factors such as diet and physical activity. The authors of the study proposed that encouraging healthy lifestyle behaviors can reduce the

burden of chronic diseases, and strategies necessary to improve health-promoting behaviors, such as physical activity are critical. Siboni and colleagues conducted a cross-sectional study from May to December 2016 with 625 subject participants from any age range with common types of chronic disease. The authors' study results demonstrated that healthy behaviors, especially physical activity reduced the risk of various diseases and deaths from all kinds of chronic diseases, and that the participants failed to continuously improve their health behaviors.

Moreover, Andualem, Gelaye and Damtie (2020) also contributed to the study expressing that a health-promoting lifestyle that maintains and enhances health and well-being has multiple dimensions. They expressed that overall adherence (including diet, exercise, smoking cessation, and moderation of alcohol consumption) among respondents with sound knowledge of the disease was almost twice as high as those with poor understanding. These authors examined the adherence to lifestyle modifications and the associated factors such as diet, exercise, smoking cessation, and moderation of alcohol consumption, among hypertensive patients in an institution-based cross-sectional study with 301 hypertensive adult subject participants in Dessie referral hospital. They concluded that healthy lifestyles are associated with diet, exercise, quitting smoking, and moderation of alcohol consumption. However, overall adherence to recommended lifestyle changes was very low. They recommended programs to increase hypertensive patients' adherence capacity to lifestyle modifications and facilitate training for health care facility professionals about lifestyle modifications to manage hypertension.

Strategies that enhance the adherence of these healthy lifestyles such as diet and exercise are significant for chronic disease management and Tsai and colleagues (2019) promoted consistent adherence to a healthy lifestyle for society by promoting diet and exercise as effective strategies for the management of chronic diseases. Tsai and colleagues explored the effectiveness of a home-based tailored lifestyle management program for middle-aged women with coronary artery disease (CAD) in an experimental study with 35 subject participants (Tsai et al., 2019). They revealed that following a healthy lifestyle intensifies high-density lipoprotein levels, decreases the level of total cholesterol and a lower waist circumference, and substantially reduces CHD risk and mortality. The authors of the study suggested that changes in the lipid profile are associated with a healthy lifestyle, such as proper diet patterns, regular exercise, and quitting alcohol and smoking and that the use of tailored interventions effectively minimized and managed the incidence of coronary artery disease in middle-aged women.

Subsequently, Gadowski and colleagues (2021) also built on healthy lifestyle behaviors as they examined adherence to physical activity and dietary guidelines, explored barriers to healthy lifestyle behaviors, and determined any associations with lipid-lowering drug therapy (LLT) in Australia. They conducted a cross-sectional study with 110 community-dwelling participants, 57 men and 53 women aged 70 years and above. The authors concluded that lifestyle behaviors might differ with pharmacological therapies. They suggested that lack of motivation is a significant barrier to physical activity among older adults since the LLT users experienced reduced physical activity. The authors of the study also recommended promoting healthy lifestyle behaviors

alongside reducing the risk of chronic disease through cost-effective home-based physical activity and nutrition programs.

Social Determinants of Healthy Behaviors

Social factors such as poor housing, access to recreation centers and sidewalks, income, education, access to health care and support, among individuals and racism may influence the ability to adhere to healthy lifestyles (Richardson et al., 2012). However, physical factors such as diet and exercise are valid but social factors influence the uptake of healthy lifestyles and are equally crucial in the proper management of CHD (Richardson et al., 2012). Hence the strength of association between social elements and adherence to lifestyle modifications cannot be overlooked. Stress reduction through workers protections, paid sick leave and child-care, access to reliable transportation and personal stress, safe surroundings with recreational centers and sidewalks and economic stability (employment, affordable housing) impacts the adherence to lifestyle modifications and proper management of CHD (Richardson et al., 2012).

Moreso, Veronese and colleagues (2020) also contributed that maintaining a healthy lifestyle may minimize some chronic diseases as they investigated whether adherence to healthier lifestyle patterns were linked to a lower decreased sense of multiple sclerosis (MS) and showed that consistently following a healthy lifestyle is linked to a lower prevalence of MS. Veronese and colleagues conducted a case-control study with 728 adult subject participants to examine the combined association of four healthy lifestyle-related factors, to include no smoking, proper diet, regular exercise, body mass index (BMI), and the prevalence of MS in Italy (Veronese et al., 2020). Based

on Veronese and colleagues' findings, adopting a healthy lifestyle and behavior may lower the chances of having MS, which could have a significant impact on an individual's health care and on community health initiatives and programs.

Psychological Determinants of Healthy Behaviors

Some studies have shown clear evidence of the associations between behavioral health and the risk of CVD and CHD (Krantz & McCeney, 2002; Khayyam-Nekouei et al., 2013). Increasing evidence that psychological health may be causally related to the biological processes and behaviors that contribute to the risk of CVD and CHD (Krantz & McCeney, 2002; Khayyam-Nekouei et al., 2013; Levine et al., 2021). However, psychological health may either negatively or positively influence CHD risk and enhance the self-management of CHD. Thus, the psychological health of individuals with CHD is pivotal to the adherence to self-management of CHD (Levine et al., 2021). An individual's attitudes – their habitual patterns of thinking and feeling – are part of the psychological aspects of CHD self-management, since they influence adherence to recommended behaviors like exercise and dietary recommendations, and therefore impact the individual's state of health (Krantz & McCeney, 2002; Khayyam-Nekouei et al., 2013; Levine et al., 2021). Attitudes might include habitual anxiety about exercise, or a long-term fear of failure, or a lack of trust or confidence in medical recommendations, plus a long list of reasons why this isn't (or is) going to work. Psychological and behavioral dimensions are imperative and influence the adequate self- management of CHD, so striving to minimize negative aspects of behavioral and psychological health

promotes an overall positive and healthy state of being (Krantz & McCeney, 2002; Levine et al., 2021).

In some studies, high perceived stress is linked to comorbid conditions and insufficient self-management of CHD and Bak-Sosnowska and colleagues (2022) suggested that psychological variables should be considered when assessing patient adherence. Bak-Sosnowska and colleagues studied the impact of loss of control, stress coping styles and medication adherence in patients with a chronic illness (Bak-Sosnowska et al., 2022). They conducted a cross-sectional study with 768 subject participants with chronic diseases except dementia; mild cognitive impairment; and mental disorders to determine the impact of psychological factors (such as health locus of control and stress) on medication adherence for chronic illnesses. The author's findings showed that individuals with high medical adherence more often had a task-oriented style of coping with stressful situations, while non-adherent patients more often exhibited the emotional style, which was consistent with the cognitive-transactional theory of stress. Social methods may have a significant impact on the regularity of proper management and care of chronic diseases and support interventions designed to improve medication and healthy lifestyle adherence.

Khayyam-Nekouei and colleagues (2013) build on the study as they reviewed psychological factors, including depression, anxiety, and stress, related to the etiology and prognosis of CHD. They explained that psychological factors might not be clinically recognized or apparent but still, they are risks rather than inevitable causes (Khayyam-Nekouei et al., 2013). The study's authors suggested that psychological characteristics

such as hostility may only be elicited under reasonable provocation and are unlikely to be expressed during a typical clinical consultation. Khayyam-Nekouei and colleagues explained that psychological factors are independent risk factors for CHD and are paramount to CHD prevention, control, and self-management, which facilitates a decrease in risk factors, treatment expenses, and illnesses and inabilities as well as improved quality of life. Hence, psychological factors and preventive actions ought to be recognized and promoted through psychological and educational interventions to increase awareness about the influential role of psychological factors of CHD in promoting community health in the future.

Krantz and McCeney (2002) critically examined studies on the impact of psychological factors on the development and outcome of CHD, with particular emphasis on studies employing verifiable consequences of CHD morbidity or mortality. The study's authors also identified five principal variables of psychosocial risk factors for CHD to include acute and chronic stress, hostility, depression, social support, and socioeconomic status. Krantz and McCeney concluded that evidence regarding the efficacy of psychosocial interventions suggested clear evidence on the psychological and social impact on morbidity and mortality, as well as the self-management of CHD.

Physical Determinants of Healthy Behaviors

Many studies promote the significance of healthy lifestyle practices as a principal element in minimizing most chronic conditions particularly, CHD and physical factors such as genetics are also critical. Jukarainen and colleagues (2022) explored this aspect as they examined the impact of genetic variation on overall disease burden and introduced

an approach to estimate the effect of genetic risk factors on disability-adjusted life years (DALYs) or lost healthy life years. The authors used genetic information from the nationwide electronic health registers of 735,748 participants and considered 80 different diseases (Jukarainen et al., 2022). They combined genetic information with the highest effect on DALYs at the individual level and presented a combining genetic information with DALYs a comparative risk assessment approach for genetic risk factors, to uniformly compare the impact of genetic exposures through multiple diseases in terms of DALYs. The authors findings suggested that genetic risk factors can explain a sizable number of healthy life years lost both at the individual and population level and that attributable DALYs vary between men and women.

Moreso, Sun and colleagues (2021) also explored opportunities to enhance disease risk prediction by stratifying populations into risk groups using information on millions of variants across the genome. They aimed to quantify the potential advantage of adding information on polygenic risk scores to conventional risk factors in the primary prevention of CVD (Sun et al., 2021). The authors used data from UK Biobank for 306,654 participants without a history of CVD and not on lipid-lowering treatments. Their findings suggested that addition of polygenic risk scores to conventional risk factors can modestly enhance prediction of first-onset CVD and if used at scale, may translate into population health benefits. Sun and colleagues concluded that the targeted strategy may help prevent CVD events than conventional risk prediction and that the assessment of polygenic risk scores may be greater than the assessment of C-reactive protein, included in other risk prediction guidelines.

Health Literacy as a Determinant of Healthy Lifestyle

Many studies promote the significance of healthy lifestyle literacy and awareness as it is a principal element in adhering to healthy behaviors for the management of most chronic conditions particularly, CHD. Health literacy is considered a multidimensional construct that not only centers on fundamental literacy which entails reading, writing, speaking and numeracy, but also focuses on science literacy, civic literacy, and cultural literacy (Shaw et al., 2012). However, systemic factors such as limited educational opportunities, racism, health system mistrust, and a lack of awareness and culturally tailored health information and services are health literacy barriers for minorities in the United States. Therefore, studies have shown that healthy lifestyle literacy has a pivotal role to play in health care delivery, outcomes, and effective management of chronic conditions (Gosadi et al., 2020; Shaw et al., 2012). Health care professionals and physicians are considered a key source of information and awareness for patients in promoting healthy behaviors, but they may not perceive or acknowledge a health literacy gap as it is often overlooked (Gosadi et al., 2020). Gosadi and colleagues reported that the poor lifestyle choices of physicians may limit their engagement in providing effective lifestyle counseling to patients with chronic diseases and patients may fail to adopt healthy lifestyles due to lack of awareness, lack of motivation, or a lack of time dedicated to healthy behaviors. In the cross-sectional study of the lifestyles of primary health care physicians, the authors found that over half of the participants failed to adhere to physical activity guidelines and diet, perhaps due to a lack of awareness, lack of motivation, or a lack of time dedicated to healthy lifestyles. The authors speculated that physicians'

lifestyle may influence the patient's lifestyle. It is essential to create intervention programs to motivate physicians to adopt a healthier lifestyle for their patients.

Froze, Arif and Saimon (2019) also built on the salient role of health literacy in adhering to healthy lifestyle practice as they identified and explored the determinants of health literacy and healthy lifestyle practice against metabolic syndrome among multi-ethnic groups in Sarawak, Malaysia. The authors of the study employed a conceptual framework on health literacy skills framework to assess the relationship between determinants and preventive care of metabolic syndrome, with health literacy and knowledge as potential mediators (Froze et al., 2019). The authors of the study used 1006 adult participants from major ethnic groups in Sarawak, Malaysia, and were recruited from the whole state through a stratified multistage sampling approach. Froze and colleagues reported that age gender differences, health literacy, and knowledge are direct determinants of healthy lifestyle practice, and health literacy requires a combination of basic literacy skills, communication ability and critical thinking. The authors of the study examined theories on factors influencing healthy lifestyle practice and suggested that a high level of health literacy may improve the understanding of disease knowledge and subsequently leading to the practice of a healthy lifestyle. Froze and colleagues explained that good socioeconomic status, such as education is associated with possessing a higher level of health literacy and their study may be helpful for policy makers in focusing on developing health literacy and integrating the teaching of knowledge of specific diseases into school curriculum.

Contributor to Healthy Lifestyles

Health literacy is considered the wide range of skills and competencies that people develop to seek out, comprehend, evaluate, and use health information and concepts to make informed choices, reduce health risks and increase quality of life (Shaw et al., 2012). Healthy lifestyle literacy is pivotal in the management of chronic diseases, especially CHD and may effectively facilitate motivation of individuals to adequately manage their condition as well as make informed decisions. For instance, Abdo and colleagues (2019) assessed knowledge of CVDs and healthy lifestyles among 1st-year college students before and after an educational program. They also explored student's physical activity, nutritional habits, health responsibility, spiritual growth, interpersonal relationships, and stress management. Their results showed that applied educational programs effectively improved individual knowledge and empowered them on nutritional habits, health behaviors, and responsibility about CVDs. The authors of the study suggested that the health education program, which included lectures, group discussions, and the participants' preparation of action plans to change unhealthy lifestyle behaviors, may effectively improve the participants' knowledge about CVDs and empower them on healthy lifestyles and behaviors.

Many studies have stressed on the fact that health literacy amplifies healthy lifestyles for chronic diseases especially cardiovascular conditions and Cajita and colleagues (2016) reported that adequate health literacy was found to be associated with good heart condition related quality of life. They conducted a systematic review to analyze the role of health literacy among heart failure patients and described the

prevalence and predictors of low health literacy among heart failure patients and discussed the relationship between health literacy and heart failure self-care. Cajita and colleagues assessed 23 quantitative research literature published between 1999 and 2014, that assessed health literacy using a previously validated instrument and included adult heart failure patients. The authors of the study reported a positive correlation between health literacy and knowledge and that age, race/ethnicity, years of education, and cognitive function were found to be independent predictors of low health literacy among adult heart failure patients. The study findings suggested that older, non-European American heart failure patients with fewer years of education were more likely to have low health literacy; hence, stressed on the crucial role of health literacy on chronic disease management. The authors of the study expressed that adequate health literacy was consistently correlated with higher heart failure and salt consumption knowledge and their study may be beneficial to facilitate public health policies and interventions to promote health literacy among individuals with chronic conditions.

Interaction Between Health Literacy and Chronic Conditions

Limited health literacy or lack of awareness is an invisible barrier to better self-care, adopting positive health behaviors, and making informed healthy choices and decisions to properly manage most chronic diseases. Therefore, creating awareness and improving health literacy to promote healthy behaviors is an important public health goal and paramount to management approaches (Shaw et al., 2012). The relationship between health literacy and chronic conditions self-care is enormous as low health literacy may have adverse effects on an individual's health outcomes with chronic conditions. L. Liu

et al. (2020), reported that chronic disease is associated with a higher level of health literacy. The researchers examined the interplay between health literacy and chronic disease prevention with 8,194 subject participants aged between 15 and 69 years of age. Their findings showed that the effect of health literacy on chronic disease prevention may not be seen in rural areas and that it may likely be increased with the support of household members and family members. The authors of the study suggested that examining the interaction between health literacy and chronic disease occurrence shows the extent to which health literacy helps to prevent or manage chronic diseases. Health literacy may play a protective role in preventing comorbidities even if the individual has at least one chronic condition. The authors findings may be beneficial in creating sustainable health literacy interventions for the community, which is significant for policy makers in enhancing equitable access of health literacy promotion services for individuals with chronic diseases among various regions.

Chahardah-Cherik and colleagues (2018) also supported the relationship between health literacy and chronic conditions as they encouraged healthy lifestyle modifications. They examined the relationship between health literacy and health-promoting behaviors from August to September 2016 with 175 subject participants aged 20 to 65 with T2DM in Ahvaz City, Iran. They aimed to determine the relationship between health literacy and health-promoting behaviors, and their findings showed a significant relationship between all dimensions of health promotion behaviors and health literacy, indicating that the health literacy of patients with T2DM is effective. Their findings are beneficial as they suggest that health care providers and practitioners should not only focus on increasing

their knowledge, but also on the health literacy for their patients. The author's results further suggest an optimal quality of life for the patients when health care providers adopt strategies to improve their diabetic patients' health literacy, motivate them and promote healthy behaviors.

Motivation in the Self-Management of Coronary Heart Disease

CVDs, particularly CHD are predominantly prevalent among low-income populations as they often lack the education and self-management skills to effectively manage their health (Hardman et al., 2020). More so, patient motivation in self-management is associated with the willingness to adopt health-relevant behaviors, and primary care physicians and practitioners are often key factors that tend to propel patients through physician-patient communication to prompt self-management practices (Schaffler et al., 2018).

Abaza and Marschollek (2017) examined the feasibility of educational text messages among diabetic patients in Egypt. They assessed the impact of educational text messages, compared to traditional paper-based methods, on glycemic control and self-management behaviors in a 12-week randomized controlled trial with an intervention group of 34 subject participants that received daily messages and weekly reminders addressing various diabetes care categories and 39 control subject participants without any text messages. They concluded that SMS education is a feasible and effective strategy for improving T2DM and self-management behaviors in a low-income country. The authors of the study suggested that mobile technology interventions might provide an innovative public health solution for people with diabetes and improve their self-

management behaviors. However, their findings may have implications for future research and may be beneficial for health care professionals in supporting and empowering patients in the management of CHD through self-management strategies, especially disadvantaged groups like low-income AA.

Barriers Among Low-Income Minorities in the Self-Management of CHD

Some studies show that AA adults have the highest rates of hypertension. The studies indicate low-income AA adults are faced with real life situations complicated by a high burden of stress, limited access to health care and resources, high environmental and social risks, which contribute to a substantial risk of comorbidity and low self-efficacy to adhere to self-management behaviors to manage the conditions (Hardman et al., 2020; Zabler et al., 2018). However, limited access to health care and resources among low-income AA adults may also hinder quality care from physicians or practitioners that provide regular patient-oriented risk consultations embedded in routine care. Zabler and colleagues (2018) affirm this when they hypothesized that an innovative ecological nurse case management intervention would minimize stress, decrease blood pressure and body mass index, enhance self-efficacy as well as to positively impact health status. They conducted a two-group randomized clinical trial with 59 low-income, AA adults aged between 30 and 65 years, receiving treatment for hypertension with antihypertensive drugs. The researchers used the individual and family self-management theory as the framework for the study to examine the impact of the innovative intervention for low-income AA adults. The authors of the study concluded that the innovative intervention allowed a meaningfully understanding to address the participants social, cultural, and

economic factors that contribute to poor self-management as well as provided adequate support and education including mental health, dental, vision and assorted medical specialist providers. They suggested that the innovative intervention provided support and improved hypertension self-management and was effective for minimizing hypertension, stress, blood pressure and body mass index for low-income AA. The author's findings may have relevant individual, clinical, and public health implications that influence patients' adherence to self-management care and a healthy lifestyle through interventions and educational programs. The findings may also be beneficial for health care professionals in supporting particularly low-income AA patients in the self-management of CHD.

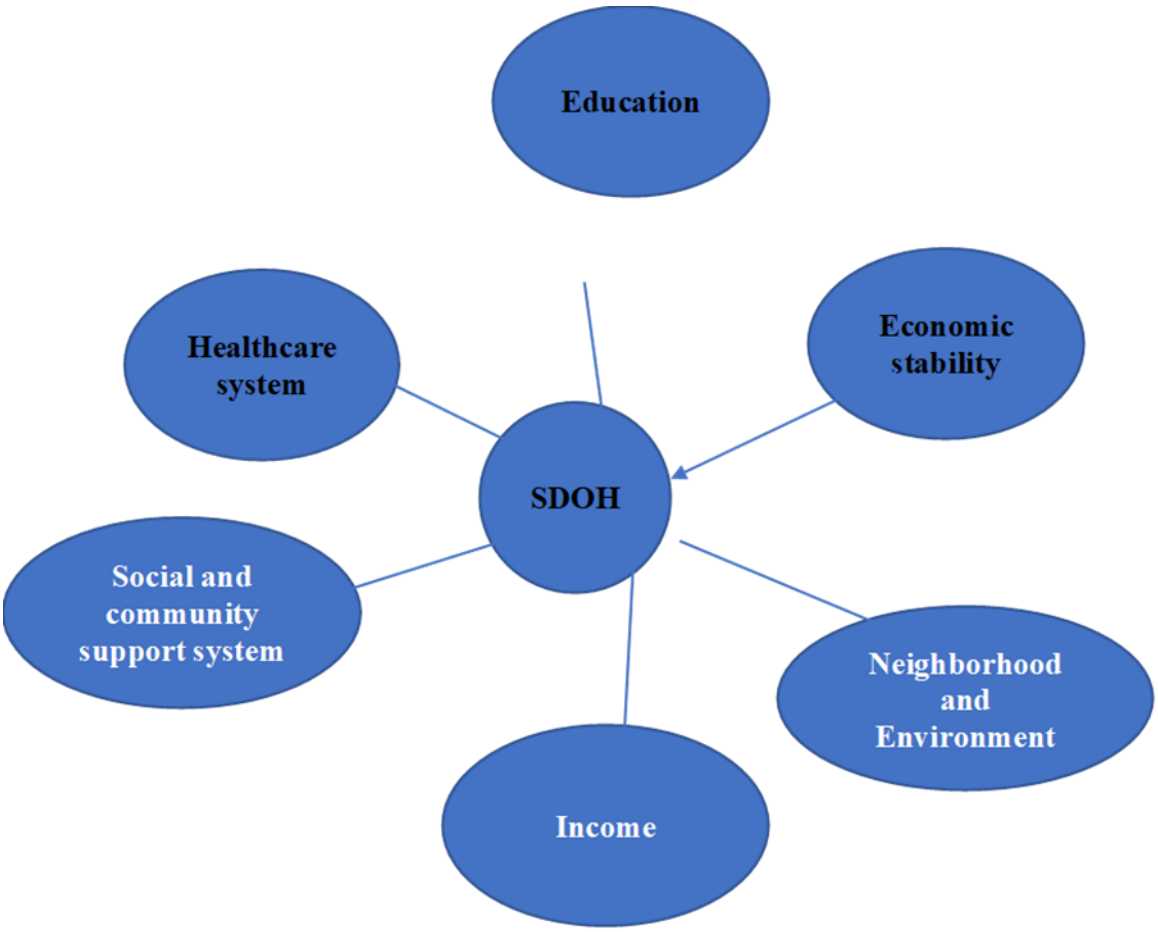
Influence of the Social Determinants of Health on the Self-Management of CHD

SDOH are considered nonclinical and nonbiological social conditions in which people are born, grow, work, live and age that impact health directly and indirectly via intermediate structural and individual factors such as health care access, health care quality and support services (Skolarus et al., 2020). SDOH may impact adhering to healthy behaviors that adequately manage most CVDs especially CHD for middle-aged and older populations as it may consist of fundamental causes of disease like racism and discrimination, unequal distribution of power, income, wealth, and education, societal values of equity and fairness that impact health (Skolarus et al., 2020). Highlighting the role of the SDOH on CVD is crucial as it presents an understanding of the mechanism by which SDOH impact CVD outcomes as well as enhances strategies that address SDOH and minimizes CHD outcomes. Many studies have originally established that social

conditions are fundamental causes of diseases especially chronic illnesses and articulated the role of SDOH on the negative consequences for health, particularly in the social environment (Kreatsoulas & Anand, 2010; Link & Phelan, 1995; Richmond & Ross, 2009). For instance, Link and Phelan and Richmond and Ross explained that social factors such as socioeconomic status and social support are likely pivotal causes of diseases since they embody access to important resources, affect multiple disease outcomes through various mechanisms, and consequently maintain an association with disease even when intervening mechanisms change (Link & Phelan, 1995; Richmond & Ross, 2009). Figure 2 represents the various SDOH that may present challenges in adopting a healthy lifestyle, particularly among AA.

Figure 2

Social Determinants of Health That May Influence the Ability of Older Adults to Sustain Healthy Lifestyles



Note. Adapted from Link & Phelan, 1995; Richmond & Ross, 2009.

Braveman and colleagues also established that greater attention ought to be paid to the basic social conditions that puts people at risk and focus on addressing the SDOH to improve health status and quality of care (Braveman et al., 2011; Braveman et al., 2010; Braveman et al., 2011; Braveman et al., 2014; Braveman et al., 2011). Alshammari and

colleagues (2020) also revealed social challenges in adopting a healthy lifestyle such as dietary habits and physical activities in a cross-sectional study with 250 adult subject participants from January to March 2018. Alshammari and colleagues showed no association between increased physical exercise and demographic variables such as participant's age, sex, marital status, and employment status and that environmental and social support barriers were the major obstacles to maintaining a healthy lifestyle. The study's authors suggested that addressing environmental changes may encourage individuals to be more physically active and adhere to healthy lifestyles as compared to their sedentary lifestyle with low physical activity and a poor diet.

Subsequently, M. Lee and colleagues (2020) also show strong evidence supporting the role of SDOH in influencing the capability to maintain healthy behaviors. SDOH displays the necessity of managing chronic diseases through comprehensive programs and community primary care institutions to improve healthy behaviors and lifestyles. The researchers analyzed the demographic characteristics and health behaviors related to chronic diseases and identified factors that may affect chronic diseases among 3,795 adult subject participants. The demographic factors include, sex, age, education, income, type of health insurance, and the health behavior factors were medical checkups, drinking, smoking, exercise, obesity, and hypercholesterolemia. The authors suggested that activity, obesity, and hypercholesterolemia were associated with the risk of developing chronic diseases, which was consistent with existing research. An additional finding included gender, age, education, and income levels also impact chronic disease. The author's findings showed that participants with lower socioeconomic status had a

higher risk of developing chronic diseases and should comprehensively manage chronic diseases with a healthy lifestyle and regular exercise, a healthy diet, and medical checkups.

Zhang and colleagues (2019) build on the effect of SDOH by showing the effectiveness of a cost-effective self-management intervention that entails healthy lifestyle behaviors, social support, and adherence to medications to manage chronic conditions (Zhang et al., 2019). They conducted a prospective cohort study with 360 participants over 50 years of age to evaluate the effects of the social engagement framework for addressing the chronic-disease-challenge (SEFAC) intervention for citizens at risk of or with T2DM and CVD. The criteria included T2DM and CVD on self-management, healthy lifestyle behaviors, social support, stress, depression, sleep and fatigue, adherence to medications, and health-related quality of life as well as the (cost-) effectiveness of the SEFAC intervention. The researchers concluded that the intervention combined the concepts of mindfulness, social engagement, and information and communication technology to support the prevention and management of chronic conditions. The study's authors also suggested that the intervention is more feasible and cost-effective in promoting self-management and self-care for individuals at risk of and suffering from chronic conditions due to combining mindfulness training, social engagement, and information and communication technology support in the intervention.

Factors in the Self-Management of CHD Among Low-Income Minorities

Chronic illnesses are often more prevalent in low-income and minority populations as some lifestyle factors including limited access to affordable housing,

healthy foods, and recreational facilities, as well as increased stress levels, may contribute to unfavorable health outcomes (Skolarus et al., 2020; Zabler et al., 2018). For instance, Jeon and colleagues (2020) showed that regional variations were more extensive in patients' health behaviors with significant chronic diseases than those of the general population. They explored demographics and its association with adhering to health behavior that appropriately manages most chronic conditions for middle-aged and older populations (Jeon, Pyo, Park & Ock, 2020). Jeon and colleagues conducted a cross-sectional study from 2008 to 2017, with subject participants aged 19 years, to examine and compare the health behaviors of chronic disease patients over time with those of the general population in Korea. The authors of the study concluded that chronic disease patients displayed worse health behaviors and there was a need to focus on strategies that enhance smoking cessation rate, decrease drinking rate, and increase physical activity rate. The author's findings may be instrumental in goal setting, managing, and strategizing medication adherence and health behaviors such as smoking cessation, alcohol abstinence, and physical activity for chronic disease patients among disadvantaged groups. Interestingly, discriminatory policies and practices may limit minorities from sustaining a healthy lifestyle, such as limited educational opportunities, racism, health system mistrust, and a lack of culturally tailored health information and services (Skolarus et al., 2020).

Chumpunch and Jaraeprapal (2022) also highlighted some factors that may influence obesity for the aged in a community. They conducted a qualitative content analysis study with 19 participants. The authors result showed that neighborhood food

environment, social networks influencing obesity, knowledge, attitudes, and beliefs that influence lifestyle choices are the major social determinants associated with obesity in the elderly in a community. The authors of the study suggested that unhealthy behaviors are strongly correlated to obesity, and obese individuals are affected by similar SDOH. They also explained that a better understanding of the social determinants framing obesity presents better chances of combating obesity and living longer and healthier lives. The authors' findings may be beneficial in developing effective health policies that may tackle SDOH and positively impact solutions that cater to vulnerable populations.

Furthermore, the role of SDOH on CVDs or impact on quality of life across the lifespan cannot be overstated as discrimination through implicit bias and structural racism, inequities in education, access to care, and access to healthy foods may contribute to psychological stress, poor health outcomes and commitment to a healthy lifestyle (Skolarus et al., 2020). AAs are mostly impacted as they have substantially higher rates of fatal CHD than European Americans and the prevalence of diagnosed CHD is predominantly higher among AAs compared to European Americans (A. G. M. Brown et al., 2017; Skolarus et al., 2020). Rao and colleagues (2021) identified the psychosocial and interpersonal factors that influence T2DM self-management behaviors in AAs and showed specific cultural and behavioral nuances and relationships between the psychosocial and interpersonal factors associated with behavior change. The study's authors explored the perceptions of AAs with T2DM on self-management behaviors and among 10 participants from November 2018 to May 2019. Rao and colleagues used the integrated theory of behavior change, which posits that the two domains affecting self-

regulation skill and ability are: knowledge and beliefs and social facilitation, for which the authors conceptualized the knowledge and beliefs domain to include psychosocial factors. The authors' results showed the following four themes: 1) attitudes and beliefs about T2DM and self-management behaviors, 2) sociocultural influences on self-management behaviors; 3) family and social support; and 4) relationships with health care providers, which affect self-management behavior change. The results from the authors' study indicate that participants highly value open and honest communication with their health care providers to maintain self-management behaviors. The authors' findings suggest the need for culturally appropriate and individually tailored interventions for AA patients with T2DM to enhance patient-centered diabetes counseling, especially education and motivation regarding self-management behaviors. This information can be used to design interventions with individualized and culturally appropriate T2DM education and counseling through open communication channels to discuss diabetes self-management behaviors improve T2DM self-management behaviors and outcomes in AA.

Summary

The above literature review shows that adopting and adhering to healthy behaviors and lifestyles substantially improves the quality of life, enhances overall life expectancy, and manages or minimizes the risk of most chronic diseases and CHD (Tian & Tein, 2020). Nevertheless, the studies offered valid information about the impact of a healthy lifestyle as well as sustainable solutions for evidence-based interventions and policies that may address the possibility of modifiable healthy behaviors improving the health status of individuals with chronic diseases. The studies further suggest that a

healthy lifestyle is associated with extended gains in the life lived without most chronic disease or comorbidity and suggested a correlation of multiple healthy lifestyle factors with the number of disease-free years for individuals across socioeconomic strata.

The literature review builds on the benefits of educational programs of self-management care of CVDs, for low-income AA. Low self-efficacy is critical for self-management behaviors and most low-income AAs have a low sense of trust in the health care system as they have limited access to health care, resources, high environmental and social risks and a high burden of stress (Hardman et al., 2020; Zabler et al., 2018). Over 80% of AA women of 20 years and above are obese compared to 61% of European American women and over 45% of AA women 20 years and older have hypertension and CVD for which they are not likely to engage in healthy behaviors that reduce CVD risk (A. G. M. Brown et al., 2017). Suboptimal diet quality is imperative to combat the challenges impacting disadvantaged and minority populations dietary practices using a multifaceted approach involving the government (through policies), community, and individual. Regardless of the glaring evidence, there are proportionately limited programs that enhance healthy behaviors and biological parameters that manage CVDs and CHD, designed for AAs specifically that cater to their culture, values, beliefs, and unique barriers (A. G. M. Brown et al., 2017).

Although, most of the data presented in the literature review are based on European American populations and affluent groups, which may not be generalizable. Further studies are warranted to replicate their findings in different ethnic and racial groups and people with other professional backgrounds (Chudasama et al., 2020; Li et al.,

2020; Tian & Tein, 2020; Zaninotto et al., 2020). Furthermore, the literature highlights the fact that many individuals do not engage in healthy behaviors, at least not consistently and especially not AAs (Philips et al., 2017; Quinones et al., 2019). Many studies show that AAs experience a higher prevalence of many chronic diseases and a significantly increased mortality risk when compared to the general population due to multiple underlying factors including, racial inequalities, marginalization, and other SDOH (Noonan et al., 2016; Philips et al., 2017; Quinones et al., 2019). A similar web of contributing factors lies behind access to health care among AAs (Chudasama et al., 2020; Li et al., 2020; Tian & Tein, 2020; Noonan et al., 2016). This web of social determinants and other health disparities continues to exasperate sustainable efforts to enhance the health and well-being of this population (Mensah, 2018; Noonan et al., 2016). Many studies reported the low-rate participation of AAs and the underrepresentation of low-income, racial and ethnic minorities groups in most research and clinical trials especially CVDs (Bierer et al., 2021; Nooruddin et al., 2020; Taylor et al., 2018). The studies may have relevant individual, clinical, and public health policy implications for healthier lifestyles and health inequality.

In this study, I intend to assess the lack of consistency in healthy lifestyle behaviors among AAs, when it comes to CHD management. Limited studies have explored CHD management through long-term adherence to sustained healthy lifestyles and behaviors among middle-aged and older AAs living in less-affluent areas. Intriguingly, the findings of this study may be beneficial in promoting sustainable mechanisms that enable marginalized populations to properly manage CHD through

healthy lifestyle modifications. In addition, the study intends to promote educational awareness of the benefits of consistent adherence to healthy behaviors to minimize the risk of developing comorbidities and enhance their quality of life. It will give insights on evidence-based interventions and public policies that promote healthy lifestyles in mainly marginalized and low-income communities, increase disease-free life expectancy, reduce chronic disease burden, and improve quality of life of low-income AA individuals.

Chapter 3: Research Method

Introduction

This was a qualitative study of the lived experiences of the self-management of CHD among middle-aged and older, low-income AAs, with a particular focus on adherence to healthy behaviors. For the study, I used the qualitative method, which is a systematic inquiry into social phenomena in natural settings, including the lived experiences of the study population (Teherani et al., 2015). It is often based on transpired events and outcomes of situations from the involved participant's perspective (Teherani et al., 2015). The qualitative research method was appropriate because it enabled me to explore the subjective lived experiences of low-income AAs who adhered to strategic healthy behaviors and lifestyles for managing chronic diseases, particularly CHD (see Sutton, 2015).

Research Design and Rationale

The RQs for the present study were as follows:

RQ1: What are the lived experiences of low-income middle-aged and older AAs living in Katy, Texas, with managing CHD through lifestyle modifications?

RQ2: What are the recommendations to improve adherence to CHD management guidelines among low-income, middle-aged and older AAs living in Katy, Texas?

To answer the RQS, I used the hermeneutic phenomenological approach and the HBM as part of a cross-sectional study design. The HBM is an extensively researched model of health behavior that centers on the prediction of health-related behavior in terms of certain belief patterns (Abraham and Sheeran, 2015). The HBM is widely used and

provides a useful framework for investigating health behaviors, predicting a range of health behaviors, and identifying key health beliefs (Abraham & Sheeran, 2015). The model provides a contextual understanding of variables that impact behaviors related to cardiovascular health (Arevalo & Brown, 2019). The HBM includes six independent predictors of behavior: perceived seriousness, susceptibility, benefits, barriers, cues to action, and self-efficacy. By using the model, a researcher can better understand the influences on healthy behaviors in participants, including beliefs about barriers and benefits (Luquis & Kensinger, 2019).

The hermeneutic phenomenological approach is an interpretive phenomenological approach for analyzing complex, ambiguous, and emotionally laden issues by presenting an account of lived experience (Smith & Osborn, 2015). However, the hermeneutic phenomenological approach can also be used to explore the lived experiences of individuals related to their adherence to healthy behaviors and lifestyles to manage CHD (Smith & Osborn, 2015). The cross-sectional study design is a type of observational study that is used to analyze data from a population at a single point in time and is often used to measure the prevalence of health outcomes, understand determinants of health, and describe features of a population (Kesmodel, 2018). The cross-sectional study design is often fast and inexpensive to conduct; the researcher does not repeat observations but instead looks at data from a population at one specific point in time—what is described as taking a "snapshot" of a group of individuals (Wang & Cheng, 2020). The participants in a cross-sectional study are selected from an available population of potential relevance to the study question without any prospective or retrospective follow-up, and data is

collected once they are chosen (Wang & Cheng, 2020). A cross-sectional study design was also relevant to the current study because I sought to understand the attitudes of the participants associated with strategic healthy behaviors and lifestyles and whether they consistently adhered to healthy behaviors and lifestyles to mitigate chronic diseases or comorbidity despite experiences of racism and discrimination in daily life (Kesmodel, 2018; Wang & Cheng, 2020).

Role of the Researcher

When conducting a qualitative study, the researcher examines why events occur, what happens, and what those events mean to the subject participant; to do so, they rely on theoretical frameworks to provide valuable in-depth insights into the participant's perceptions of the decision-making process as well as their views and experiences (Teherani et al., 2015). My role in the current study was to conduct the entire research. Because the hermeneutic phenomenology is not a fixed methodology and is not compelled by structured stages of a method, I needed to accommodate, question, and think about methodological issues throughout the study to ensure that I captured the meaning of the study phenomenon (see Alsaigh & Coyne, 2021). Furthermore, the research methodology is designed to present detailed textual descriptions of the experiencing of phenomena with a deeper understanding of the meaning: thus, the researcher is deeply influenced by the traditions of their culture, which play a significant role in their interpretation of data (Alsaigh & Coyne, 2021).

I avoided recruiting participants from my work environment or with whom I was otherwise familiar to avoid any researcher's bias or conflict of interest with the

participants. However, when engaging with the participants during data collection, I needed to assist participants in identifying what they felt because this was a key aspect of what was being studied: attitude, which is a precursor of behavior (Schwab & Margaritis, 2020). Identifying and assessing the emotions of participants was crucial to collecting data that could answer the RQs for this study.

Methodology

Participant Selection Logic

I conducted the current study in Katy, Texas, in Spring 2023 to examine the lived experiences of adherence to healthy behaviors to manage CHD among middle-aged and older low-income AAs living in Texas. Purposive sampling was used to recruit participants for the study, and flyers with the necessary information were distributed with authorization in some identified clinics and health centers in Katy, Texas. The flyers (see Appendix C) were distributed to recruit interested and eligible participants; the flyers included the inclusion criteria, details about the study, contact information if interested, and information on an incentive that I offered to alleviate research-related burden of the participants. I provided a $20 gift card to each participant, which I mailed after their interview was completed.

I assessed individuals who expressed interest for eligibility according to the inclusion and exclusion criteria. The inclusion criteria were.

- adult male or female
- AA

- on Medicaid or Medicare or having no insurance
- between the ages of 40 to 80 years
- diagnosed with CHD.
- speaks English.
- living in Katy, Texas

Individuals who were unable to communicate or who were critically ill were excluded from the study.

Potential eligible participants are recruited through advertised flyers posted in various clinics and organizations. The flyer contains all the necessary information including a call-back number if interested. Call-backs are received from interested participants and when identified, these individuals are mailed a copy of the study package, which consists of a study consent form, a study information sheet explaining the objective of the study as well as a return envelope. Potential participants must return the consent form to take part in the study. When the signed consent forms are received, selected participants are contacted via telephone to schedule a convenient time for a telephone interview which will be recorded and maintain confidentiality.

Instrumentation

The data collection instrument used for the current study is an interview protocol with a series of open-ended interview questions, is informed by the six constructs of the HBM--: perceived risk severity perceived benefits to action, perceived barriers to action, perceived cues to action, perceived risk susceptibility, and perceived self-efficacy. The interview questions (see Appendix A) will not be sourced from instruments created by

other researchers but are created by the current researcher to address the study questions and, as such, will require no permissions, copyright, or licensing restrictions to use research instruments for the present study. The HBM facilitates a practical additional predictor framework that explains the influence of some factors on the perception of a personal health behavior threat, including interest and concern about health, specific health beliefs about vulnerability, and consequences to a particular health threat (Luquis & Kensinger, 2018). The origination of the data collection instrument is based on the study by Beer and colleagues, who applied the HBM for health promotion programs to explore the perceptions of malaria and bed-net use after a noticeable reduction in malaria incidence (Beer et al., 2012). The study's authors used the HBM as the main framework for their research. According to the model, its elements served as the categories where key categories were pre-determined with the HBM constructs of perceived susceptibility, perceived severity, perceived benefits, perceived barriers of bed-net usage, cues to action, and self-efficacy (Beer et al., 2012). However, the study by Beer and colleagues is somewhat related or alike to the current study as they are both qualitative studies used for health promotion programs, and the prior research, maintained trustworthiness as the framework was used to understand the community attitudes, perceptions, and beliefs on malaria and bed-nets and not to describe the association between these beliefs and the actual behavior of caretakers (Beer et al., 2012). To identify emotions more clearly, I plan to use a taxonomy of emotions (see Appendix B) as prompts for the interview questions, and as such maintaining and collecting well-defined data for the study (Schwab &

Margaritis, 2020). Thus, the current study utilizes the data collection instrument to answer the RQs and establish the trustworthiness of the present study (Beer et al., 2012).

The hermeneutic or interpretative phenomenological approach will be used to analyze and interpret the data. The analysis for hermeneutic phenomenology entails a circular process of enriched understanding of a different horizon through careful questioning, watching, intuiting, and listening to numerous readings of the collected data. The reference study for the data analysis approach is based on the study by Moghaddam-Tabrizi and Sodeify, which applied the interpretative phenomenological approach to reveal the lived experiences of nurses in the care of patients with COVID-19 (Moghaddam-Tabrizi & Sodeify, 2021). The authors of the study used the interpretative phenomenological approach as the supporting structure to analyze and interpret the data collected in their research and extract and reveal the personal lived experiences of the participants (Moghaddam-Tabrizi & Sodeify, 2021). Moghaddam-Tabrizi and Sodeify presented basic information about the lived experiences of nurses in different dimensions and suggested that nursing managers need to provide various programs and strategies to support nurses and ensure the quality of patient care (Moghaddam-Tabrizi & Sodeify, 2021). The authors of the study also maintained the rigor of the study with the credibility of the data, which was obtained through the prolonged involvement of researchers with raw data by repeatedly listening to and transcribing the text of the interviews to become familiar with the texts (Moghaddam-Tabrizi & Sodeify, 2021). Moghaddam-Tabrizi and Sodeify returned the text with the themes that emerged from the interviews to the participants, monitored the entire research process by recording all activities and

decisions from the beginning to confirm the data, as well as maintained transferability through sampling with maximum variation (Moghaddam-Tabrizi & Sodeify, 2021).

The study by Moghaddam-Tabrizi and Sodeify is identical to the current study as they both aim to provide detailed examinations of personal lived experience and consider the process of extracting and revealing hidden experiences without bracketing out the perspective of the investigator. However, the questionnaire will be pilot tested and prior to the pilot test, the questionnaire will be reviewed by an expert that specializes in the field of conducting qualitative research studies. The pilot test will be conducted by me the researcher, on a few of my colleagues to present insights on the feasibility of the questionnaire. Hence, the current study intends to utilize the interpretative phenomenological approach as an analyzing and interpretative instrument of the data collected to answer the RQs and establish trustworthiness (Moghaddam-Tabrizi & Sodeify, 2021).

Procedures for Recruitment, Participation, and Data Collection

The data will be collected in Katy, Texas, a city located in Fort Bend and Harris County, Texas, with a population of 24,005 people (United States Census Bureau, 2021). The AA population in the city is approximately 7.9% compared to 76% European American (United States Census Bureau, 2021). Data will be collected using a one-on-one telephone interview with open-ended questions about the experience, meaning, and perspective from the standpoint of the participants and seeing the view of the subject participants as well as to be true to the participants (Hammarberg, Kirkman & De Lacey, 2016; Sutton, 2015). The interview questions will focus on the participant's personal

history or features such as gender, age, education, health status, and CHD-related characteristics. Adherence to specific healthy lifestyles such as physical activity, nutritional foods, dietary changes, adequate sleep, smoking, and alcohol consumption are challenges encountered by some of the associated SDOH. The set of open-ended questions is informed by the HBM approach, which includes the six constructs: perceived risk severity, perceived benefits to action, perceived barriers to action, perceived cues to action, perceived risk susceptibility, and perceived self-efficacy. However, when call-backs are received from interested participants, they are identified and mailed a copy of the study package, which consists of a study consent form, a study information sheet explaining the study's objective, and a return envelope. When the returned envelope is received from the consenting participants, they will be contacted via telephone to schedule a convenient time for their interview. They will be reached at their scheduled time for the telephone interview, which the researcher will conduct. The researcher will conduct the entire interview within 1 to 2 weeks, and the interview will last approximately 30 min for each participant to answer. Field notes and audio recordings will be taken during the interview to retain all information provided and to ensure the study's rigor, as all the experiences including emotional experience collected by the researcher are continuously reviewed. However, assessing a set of emotional experiences of the participants, such as anxiety, hope, curiosity, despair, joy, and interest, is significant i' the data collection process, and the researcher relies on self-reporting data to generate unique data that can be standardized and aggregated as well for comparison (Schwab & Margaritis, 2020). Emotions are precursors of behavior, and as such, the

researcher ought to strategize ways to help participants identify what they feel since they may exhibit multiple feelings concerning a particular situation. The researcher intends to utilize a taxonomy of emotions (see Appendix B) to create prompts for the interview questions to sustain the collection of well-defined data for data analysis (see Schwab & Margaritis, 2020). In the event of fewer participants, than anticipated, I will request a change of procedures from the Walden University Institutional Review Board (IRB) to broaden the recruitment perimeter by placing flyers in nearby cities and organizations to increase response from participants. Additionally, to minimize the research-related burden and encourage participation, incentives of $20 gift cards will be included in the flyers. The incentives will be mailed to the participants after the interviews. In other follow-up interview procedures, in case of a return for follow-up interviews or cancellation of previous interviews, the researcher will extend the research interview duration by 1 week to cover for such lapses. When all interviews are completed, the transcripts will be read multiple times and then reviewed, transcribed, and coded into emerging profiles and subthemes for analysis.

Data Analysis Plan

The interpretative phenomenological approach will be used to analyze and interpret the data. The analysis for hermeneutic phenomenology entails a circular process of enriched understanding of a different horizon through careful questioning, watching, intuiting, and listening to numerous readings of the collected data. The researcher will conduct all the interviews and then review the information collected as well as the emotional status of the participants, to understand the phenomenon under study.

Diekelmann's hermeneutic phenomenological approach, which is a seven-step method called the hermeneutic cycle, will be used to interpret and analyze the data, where the meaning obtained interprets the participants' experience by going back and forth between the parts and the whole data (Diekelmann, 1993; Moghaddam-Tabrizi & Sodeify, 2021). Prior to analyzing the interview text, each case is defined by describing the participant's personal history or features such as their gender, age, education, and health status; to provide a broad sketch of the participant required to shape the understanding and interpretive decisions.

In Diekelmann's hermeneutic phenomenological approach, the first step is that the transcript text of the interviews will be repeatedly listened to understand the phenomenon under study, which is the lived experiences of self-management of CHD among older people, low-income AA. The next step is that the actual contents and hidden meanings in the descriptions provided by the participants are extracted to answer question one and two of the study questions. The collected information, including the emotional experiences of the participants are coded and labeled into interpretive profiles that summarize the entire text collected in the study to provide a clear and coherent category system, captured into interpretive coded broad profiles that address the study aims. In the third step, the coded interpretive profiles are analyzed to obtain a common understanding of the descriptions provided. The coded process is repeated on the interpretive profiles directly related to the study and aims to generate subthemes that share the same perspective and dimension. The fourth step in resolving the contradictions in the interpretations is, referring to the text of the interviews, obtaining a shared understanding

and interpretation of the descriptions provided, and determining and describing the texts adequately. The fifth step is to compare and contrast the interpretive profiles: the themes were chosen and defined as the interpretive coded profiles, and subthemes are configured and arranged similarly to enable comparisons and document the collected relevant information. The sixth stage is that the coded texts are explicated and discussed to enhance understanding in the form of themes. The seventh step is to depict the findings in the form of central themes.

Issues of Trustworthiness

The interview questions (see Appendix A) were not sourced from instruments created by other researchers but originally created by the current researcher to address the study questions. Thus, no permissions, copyright, or licensing restrictions to use research instruments were required for the current study. The set of semi structured open-ended interview questions developed was informed by the HBM approach using the six constructs and explored the participant's:

- Perceived risk severity of lack of adherence by asking them how worried they were about the consequences of not adhering to the healthy lifestyles.
- Perceived benefits to the action of adequately managing their condition of CHD by asking them if they believed that the healthy lifestyles would prevent CHD.
- Perceived barriers to action from the consistent racism, marginalization and discrimination faced in their everyday life by asking them how they felt about

potential obstacles like social and environmental determinants of health for consistent adherence.

- Perceived self-efficacy of their belief to execute the healthy behavior and lifestyles by asking them how confident they are in their ability to maintain the healthy lifestyle and their social environment.
- Perceived risk susceptibility of inadequate management of CHD by asking them how likely they thought it was that their condition of CHD may become severe or may develop comorbidity.
- Cues to action of the assistance and encouragement received to sustain the decision by asking them what support they had in dealing with obstacles of social and environmental determinants of health that could have helped them make the decision as well as uphold the decision.

The interviews will be recorded to confirm the data and maintain credibility, and the methods will be transparent to any interested party to establish consistency and repeatability of the methodology.

The data analysis approach is the interpretive phenomenological approach, also known as the hermeneutic phenomenological approach to extract and reveal hidden experiences to provide detailed examinations of the personal lived experiences of the participants to ensure dependability and confirmability of the study. Sampling with maximum variation ensures transferability as purposive sample will be utilized in the current study. However, the entire data analysis process will utilize the Diekelmann's hermeneutic phenomenological approach, and the recorded data is read and listened to

repeatedly to retain the data, thereby ensuring credibility, dependability and confirmability and the detailed interview, data collection protocols as well as the in-depth documented methodology, can be provided to any interested party to establish consistency and repeatability. Moreover, the specific procedures to be employed in the current study, such as the line of questioning pursued in the data gathering sessions and the methods of data analysis and information-seeking behavior and strategy, is derived or based on the success of Moghaddam-Tabrizi and Sodeify, which was originated from Diekelmann's hermeneutic phenomenological approach (Diekelmann, 1993; Moghaddam-Tabrizi & Sodeify, 2021). Diekelmann utilized predominantly behavioral approaches by applying the Heideggerian phenomenology as the philosophical background to generate a seven-step method to uncover the meaning of practices shaped by behavioral pedagogy within the day-to-day lives of students and teachers in baccalaureate nursing education and expressed the relationship between the themes "applying content as thinking," and "content as neutral, unproblematic, and consensual (Diekelmann, 1993). However, Moghaddam-Tabrizi and Sodeify used the Diekelmann's seven-step method to explore the lived experiences of nurses in the care of patients with COVID-19 in Khoy, Iran, with 14 participants and collected using in-depth, semi structured interviews. The interviews were recorded, transcribed, analyzed, and interpreted using Diekelmann's hermeneutic phenomenological approach (Moghaddam-Tabrizi & Sodeify, 2021). Finally, the consistency and repeatability of data collection through in-depth documented methodology will be displayed and the detailed interview/data collection protocols and guides ensures reliability, dependability, and

confirmability of the current study. The study will maintain rigor and reflexivity with the attentiveness to the participants during data collection and with the interpretive profiles as it presents an audit trail of analysis.

Ethical Procedures

I obtained approval from the IRB of Walden University "approval no: 06-02-23-0558358", to proceed with the study. Prior to collecting the data, all ethical considerations will be observed in this study, with an informed consent signature confirmation. The informed consent package described the study background and purpose, the possible risks, the confidentiality of information and records and informed that they would be mailed an incentive of a $20 gift card after completing the interview to reduce research-related burden. All the participants must agree to participate in the study as they will consent before the interviews are conducted. Participants will also be assured of privacy, confidentiality, optional withdrawal from the research and the information collected would be used for research purposes only. Hence, the ethical concerns pertaining to how the data collected will be handled was considered as the participants personal information will not be shared in the recorded interview as they will be confidential and anonymous and coded with participant #1 to #15. The recorded interview will be safely stored for the study and the researcher will be the sole individual to have access to the collected data. And the data will be discarded after the study to maintain privacy and confidentiality. Finally, the study will not be conducted in the researcher's work environment to eliminate any conflict of interest or researcher's bias.

Summary

The current study examines the lived experiences in adhering to and not sticking to healthy behaviors that manage CHD among low-income, middle-aged, and older AAs. However, recruiting the participants will be conducted using flyers to advertise participation and the inclusion and exclusion criteria are simple and straightforward. Interested participants will contact the researcher, and the informed consent package will be mailed to them with a return envelope. The data collection will be conducted via a telephone interview that may last for 30 min, and the interview questions will be informed by the HBM approach. The analysis process may be cumbersome because of the enormous amount of data generated to be reviewed and analyzed to answer the RQs, and the Diekelmann hermeneutic phenomenological, seven-step approach will be used for the data analysis. It will present an in-depth understanding of the complex practical lived experiences of the population. The study will be approved by the IRB ethics committee of Walden University for the study to commence and ethical considerations of the study focused on privacy, confidentiality, and handling of the study data during and after the study.

Chapter 4: Results

Introduction

In this qualitative study, I examined the lived experiences of the self-management of CHD among middle-aged and older, low-income AAs who were between the ages of 40 and 80 and living in the city of Katy, Texas. In 2020, the city of Katy had a population of 24,005 people, of whom approximately 7.9% were AA compared to 76% European American (United States Census Bureau, 2021). I focused on the self-management of CHD, which has been found to be an effective approach for managing CHD as well as other chronic conditions; my specific focus was AAs, who have a slightly significant higher risk of morbidity and mortality of CHD compared to other population groups (Andualem et al., 2020; Tsai et al., 2019). However, CHD carries an enormous social and economic cost, and its management is long-term with unpredictable acute episodes as it appears to be an epidemic in recent times with at least some aspects of affluence (Moran et al., 2019). Assessing the personal understanding and experience of AAs as they self-manage the condition through adherence to healthy lifestyle guidelines was critical in studying the impact of the condition in their daily lives and the poor adherence to the lifestyle modifications by this group.

The RQs for the present study were.

RQ1: What are the lived experiences of low-income middle-aged and older AAs living in Katy, Texas, with managing CHD through lifestyle modifications?

RQ2: What are the recommendations to improve adherence to CHD management guidelines among low-income, middle-aged and older AAs living in Katy, Texas?

In this qualitative phenomenological study, I examined the lived experiences of AAs related to adherence to recommended healthy modifications for managing CHD. I applied the hermeneutic phenomenological approach to present a detailed textual description of participants' personal lived experiences and understanding of CHD. In this chapter, I explain the data collection and data analysis processes as well as present the results from the study.

Setting

The setting of this qualitative study was in the city of Katy, a city located in Fort Bend and Harris County in the state of Texas, with a population of 24,005 in 2020. I intended to recruit between 12 to 15 AA participants aged 40–80 years old who satisfies the inclusion exclusion criteria. The inclusion criteria were that participants be an adult man or woman; an AA; an English speaker; between the ages of 40 and 80 years; diagnosed with CHD; living in Katy, Texas; and on Medicaid or Medicare or having no insurance. The exclusion criteria were if the participant was unable to properly communicate or was critically ill. I obtained approval from the Walden Institutional IRB and then began to recruit eligible participants for the study within the city of Katy. I distributed the approved flyer (see Appendix C) to several low-income clinics and health centers. Few people responded to the flyer for reasons that are unknown, resulting in a below-average response rate. The few participants who met the inclusion criteria were accepted for the study. Following a comprehensive explanation of the study to the interested participants who met the requested criteria, the written consent forms were sent

to them via email, and the completed and signed consent forms were subsequently obtained from the confirmed participants.

Data Collection

Twelve individuals—seven women and five men—participated in this study. The data collection period for this study was from June 2023 through August 2023. I sent the consent form, which addressed the purpose and necessity of the study, to the participants via either email or postal mail. After the signed consent form was sent back to me, I scheduled an interview with each participant. The participants were assured confidentiality, which was strictly maintained as they were all assigned a unique identifier to maintain their identity during the interview. I also safely secured the recorded interviews. The interviews took place in Katy, Texas, via a one-on-one telephone interview with an approximate duration of between 18 and 35 min for each participant.

The 12 participants responded to all 13 questions, which were informed by the HBM approach. Data were successfully collected, and the telephone interviews were recorded using a recorder. The audio recordings were securely saved on a disc drive. The interview questions focused on the participant's personal history or features such as gender, age, education, occupation, and health status (see Table 1). The other questions were centered on the consistent adherence to the specific healthy lifestyles such as physical activity, nutritional foods, dietary changes, adequate sleep, smoking, and alcohol consumption as well as the challenges encountered in sustaining the healthy lifestyle modifications. The participants openly shared their personal experiences related to the

self-management of CHD, with some expressing their emotions, including moments of sadness, which helped convey the everyday challenges they face. Following each interview, I conveyed my gratitude to the participants for their valuable contributions and provided them with a $20 gift card.

Table 1

Participant Demographics

Participant	Sex	Age	Occupation	Education
U1	Female	46	Retail	High school diploma
U2	Female	48	Customer service	Bachelor's degree
U3	Female	51	Truck driver	Associate's degree
U4	Female	40	Paralegal	Associate's degree
U5	Male	60	Retired	High school diploma
U6	Male	44	Medical assistant	Associate's degree
U7	Female	41	Nail tech	High school diploma
U8	Female	51	Retail	Bachelors degree
U9	Male	42	Medical assistant	Associate's degree
U10	Male	58	Unemployed	High school diploma
U11	Female	46	Retail	Associate's degree
U12	Male	57	Tow truck driver	Associate's degree

Data Analysis

The interpretative phenomenological approach was used to analyze and interpret the collected data, for which the transcript text of the interviews will be repeatedly listened to understand the phenomenon under study. The collected information is coded, categorized, and labeled into interpretive profiles, categories, subcategories, and themes that summarize the entire text to provide a clear and coherent category system. The data collection process and analysis were conducted simultaneously, and a confirmation of data saturation was attained after the 12 interviews, and no new categories or themes

emerged from the data collected (Braun & Clarke, 2021). The data analysis was informed by the seven stages of hermeneutic analysis and the transcript text of the interviews was repeatedly listened, to make notes for a hand-coding system to understand the phenomenon of the participant's experience. Meaningful text parts were identified for which interpretive summaries and relevant codes was assigned to shared meanings for each text part of the interview. I analyzed each interview independently and compared the texts to further generate shared meanings and common categories, subcategories, themes, and subthemes that share the same perspective and dimension within the interview for clarification. Patterns of possible links or correlation between the main categories and subcategories was also identified and the subcategories are configured and arranged similarly to enable comparisons of the categories to identify shared or common categories among individual interviews.

The shared main categories and sub-categories across the sample interviews were developed to reflect common interpretation and some of the individual profiles were deemed meaningful to be integrated into the main categories. For example, the subcategories of consistency in management, support and resources, motivation for adherence, and challenges in maintaining consistency all supported the main category of lives experiences of adherence (see Table 2). The subcategories understanding recommended practices, recognized benefits of adherence, and perceived consequences of inconsistency gave rise to the main category of enhancement of adherence recommendations (see Table 3). Therefore, the categories were then synthesized to verify

the final main categories and subcategories to conclude a final analysis of the interviews required to answer the research study.

Table 2

Frequency of Category 1 Subcategories in Participant Responses

Participant	Category 1: Lived Experiences of Adherence			
	Subcategory 1: Consistency in Management	Subcategory 2: Support and Resources	Subcategory 3: Motivation for Adherence	Subcategory 4: Challenges in Maintaining Consistency
U1	1	2	1	1
U2	1	2	2	1
U3	1	2	2	1
U4	1	2	2	1
U5	1	2	2	
U6	1	2	1	1
U7	1	2	2	1
U8	1	2	1	1
U9	1	2	1	1
U10	1	2	1	1
U11	1	2	1	1
U12	1	2	1	1

Table 3

Frequency of Category 2 Subcategories in Participant Responses

Participant	Category 2: Enhancement of Adherence Recommendations		
	Subcategory 1: Knowledge of Recommendations	Subcategory 2: Perceived Risks	Subcategory 3: Known Benefits
U1	2	2	2
U2	2	2	2
U3	2	2	2
U4	2	2	2
U5	2	2	2
U6	2	2	2
U7	2	2	2
U8	2	2	2
U9	2	2	2

U10	2	2	2
U11	2	2	2
U12	2	2	2

Evidence of Trustworthiness

The credibility, transferability, dependability, and confirmability criteria collectively establish the quality of a phenomenological research study (Guba & Lincoln, 1989). The implementation of credibility and transferability strategies is displayed with the use of purposive sampling and semistructured, open-ended interview questions, which were originally created by the researcher and not sourced from instruments created by other researchers and, as such, facilitated the deepness and richness of the collected data. The researcher conducted all the interviews to avoid any bias associated with multiple researchers and to obtain more open and honest responses from participants. The recorded interviews are listened to repeatedly to retain the data confirm the detailed examinations of the personal lived experiences of the participants and maintain the credibility, confirmability, and dependability of the study. The transparency of the methods established consistency and repeatability of the methodology. The researcher-maintained reflexivity with attentiveness to the participants during and after each interview as a tool to become aware of the preconceptions and biases and with the interpretive profiles as it presents an audit trail of analysis. The researcher ensured rigor by enabling continuous evaluation of the text and interpreted the text with critical reflection to enhance accuracy as well as ensure the quality of the findings. Moreover, the chair member committee examined the findings to partially foster confirmation of the

data analysis, ensure the rigor of the interpretation, ensure thorough interpretation of participant's individual experiences and that findings were reasonably interpreted.

Results

A total of 12 participants, consisting of seven women and five men, fell within the age range of 40 to 60. Of these participants, two men were unemployed, while the remaining ten had jobs. Each participant was either covered by Medicaid/Medicare or had no insurance. Educational backgrounds varied, with four participants holding high school diplomas, six having associate degrees, and two possessing bachelor's degrees as their highest level of education. The participants had been diagnosed with CHD within 1 to a few years before the time of the interview.

The recounting of participants' stories and subsequent analysis unveiled the progression of their experiences, categorized into two core categories addressing the RQs. These core categories are " experiences in adherence " and " enhancing adherence recommendations," as indicated in Table 2. Moreover, the analysis gave rise to subcategories that contributed to the main categories. For instance, subcategories like consistency in management, support and resources, motivation for adherence, and challenges in maintaining consistency" Collectively formed the main category of experiences in adherence. Similarly, subcategories such as understanding recommended practices, recognized benefits of adherence, and perceived consequences of inconsistency merged to create the main category of enhancing adherence recommendations, as denoted in Table 2.

Most study participants identified “family” as their primary source of motivational support. Additionally, faith-based factors emerged as significant support for some participants in managing their condition through healthy lifestyles since their diagnosis. Themes also surfaced from the transcripts, with participant statements and quotes relevant to these emerging themes documented and presented in Table 4 to ensure the accuracy and quality of the findings. The researcher excluded redundant themes and statements that did not contribute to a deeper understanding of the participants’ lived experiences. The researcher also verified each theme against participants’ quotes and statements in the transcripts to maintain precise interpretation, with labels corresponding to the RQs addressed in the study.

Category 1: Lived Experiences of Adherence

The primary category, experiences in adherence, emerged from several subcategories, including consistency in management, support and resources, motivation for adherence, and challenges in maintaining consistency. Participants shared their experiences and challenges in consistently adhering to the healthy lifestyle guidelines. Regarding the subcategory motivation for adherence, all participants identified moderate motivation for maintaining the healthy lifestyle guidelines. Their motivations predominantly revolved around family, staying alive, or their faith. The subcategory motivation for adherence encapsulates the profound reasons driving participants’ commitment to maintaining these guidelines. Some participants expressed their motivation with statements such as "I want to be there for my family" and "I make an

effort to live healthily and stay alive," shedding light on the factors that drive them to sustain a healthy lifestyle.

Conversely, the subcategory challenges in maintaining consistency highlights the obstacles participants reported encountering while adhering to the healthy lifestyle guidelines. All participants, except for two, mentioned that their occupation posed a significant challenge in consistently maintaining these guidelines. One of the exceptions was a retired 60-year-old man who reported no challenges sustaining the recommended lifestyle modifications. The other exception was an unemployed 58-year-old man who expressed frustration and fatigue as significant obstacles in adhering to his doctor's recommendations.

The subcategory support and resources encapsulated the participants' profound experiences concerning the encouragement and resources they received while striving to adhere to the recommended healthy lifestyle. The accounts of their experiences unveiled that, except for one participant who had access to abundant support and resources, all participants had a moderate level of support. Their sources of support included their families, doctors, communities, and faith. Their families provided motivation and encouragement to improve, their doctors demonstrated concern by thoroughly explaining the recommendations, and their communities supported them through various programs and by creating safe living environments.

The subcategory consistency in management sheds light on how participants perceived their ability to manage their condition with healthy lifestyle modifications consistently. The analysis revealed that, with one exception displaying high management

consistency, all participants exhibited moderate management consistency. The participant with high management consistency consistently adhered to the healthy lifestyle guidelines without lapses, demonstrating discipline in maintaining these modifications. Other participants with moderate management consistency might have shown occasional inconsistencies with some recommendations but were generally committed to maintaining a healthier and more sensible lifestyle. They viewed physical and emotional changes not as hindrances but as an evolution of their new reality, prompting them to adapt consciously and rationally to sustain a healthier way of life.

Category 2: Enhancement of Adherence Recommendations

Another primary category was enhancing adherence recommendations, which was derived from the subcategories understanding recommended practices, recognized benefits of adherence, and perceived consequences of inconsistency. Within this category, participants shared their insights on the recommended healthy lifestyle practices and the potential risks and benefits associated with self-managing CHD. The subcategory understanding recommended practices elucidates the participants' knowledge and comprehension of the healthy lifestyles essential for effectively managing CHD. Every participant exhibited a comprehensive understanding of the condition and the diverse lifestyle approaches to its management. They attributed this knowledge to their health care providers, family members, and independent research on the disease and its self-management. Many participants used phrases like "My doctor advised me to adopt a heart-healthy lifestyle," some mentioned gaining insights from educational videos on platforms such as YouTube or Facebook. As a result, they emphasized the role of

health care professionals and their proactive efforts in educating themselves about the condition.

The subcategory recognized benefits of adherence portrays the participants' perception and comprehension of the advantages of maintaining a healthy lifestyle to manage CHD. All the participants in the study demonstrated a robust awareness of the benefits linked to adhering to recommended lifestyle guidelines for managing CHD. This knowledge significantly motivated them to commit to these healthy lifestyle practices consistently.

Conversely, the subcategory perceived consequences of inconsistency illuminates the participants' awareness of the potential repercussions of not consistently adhering to the healthy lifestyle guidelines. Each participant displayed a remarkable level of understanding concerning the risks that may arise when CHD lacks proper management using the prescribed healthy lifestyle guidelines. They received guidance from their health care providers and took proactive measures to educate themselves about the condition.

Furthermore, the core categories and subcategories categorize the participants' accounts of their lived experiences. These classifications provide valuable insights and in-depth descriptions of how they embodied their experiences, shedding light on their perspectives regarding the encouragement to stay healthy and alive. Some participants also learned to lean on their families, doctors, and faith for support and motivation, fostering an enduring commitment to maintaining a healthy lifestyle.

Themes

Ten themes were identified based on shared emotional experiences and the potential courses of action participants conveyed. These themes were derived using the taxonomy of emotions as outlined by Schwab and Margaritis in 2020 (see Appendix B), the themes include: (a) sadness, (b) fatigue, (c) relief, (d) hope, I worry, (f) gratitude, (g) fear, (h) balance, (i) encouragement, (j) boldness. Table 4 shows the frequency of each theme expressed by the participants.

Table 4

Frequency of Themes in Participant Responses

Theme	Participant											
	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	U11	U12
1: Sadness	1			1				1			1	
2: Fatigue	1			1				1	1	1	1	
3: Hope	1		1		1			1	1			1
4: Relief	1			1				1			1	1
5: Worry	1						1			1		
6: Gratitude		1	1	1	1	1	1	1	1	1	1	1
7: Fear		1		1							1	
8: Balance		1	1		1	1						1
9: Encouragement	1	1	1			1	1					1
10: Boldness					1							

Theme 1: Sadness and Frustration From the Inability to Sustain the Recommended Lifestyle

The first theme of "sadness and frustration from the inability to sustain the recommended lifestyle" explained how the participants demonstrated dejection both emotional and physical, despite the various support from their family in maintaining consistent adherence to the essential healthy lifestyle guidelines for CHD self-management. The theme of "sadness" found a poignant resonance in’U4's heartfelt experience, where her struggles and obstacles came into sharp focus. Her journey of self-

managing CHD marked a profound sense of unhappiness stemming from the complex challenges she encountered along the way. These challenges cast a shadow over her daily life, with her job emerging as a prominent source of difficulty. Amid her demanding work commitments, U4 encountered hinderances from maintaining a consistently healthy lifestyle. Her job consumed her time and drained her energy, making it difficult to prioritize her well-being. The weight of these challenges added a layer of sadness to her experience as she grappled with the daily juggle of responsibilities. Additionally,'U4's statements shed light on the limited support she received from her community. While her children and family offered unwavering support, she yearned for more significant engagement from the broader community—the sense of isolation and the absence of robust community resources added to her sadness.'U4's narrative serves as a powerful reminder of the multifaceted nature of individuals' challenges when dealing with chronic conditions. Her experience underlines the importance of understanding and addressing the hurdles that hinder consistently pursuing a healthy lifestyle. It also highlights the vital role that community support and resources can play in alleviating the sadness and obstacles experienced by those on the path to self-managing CHD. In her narrative,'U4's experience calls for empathy and support for individuals facing similar challenges, reminding us of the importance of compassion and understanding in the journey toward well-being. She stated,

> Well, speaking on a bigger and more detailed role my family plays, I would say motivation and makes me put everything into perspective more, and with my heart's condition, it is so hard! You know, it is easy to give up faith and just like

sink into it and just be like, “oh you know what, whatever!”, and then just go back to unhealthy habits and other unhealthy things that you are used to. But motivation from my family helps, like sometimes my cousin may say “Come let's go to the gym today!” and I would be like “Ahh!” but will eventually go when she pushes me some more. In regard to support, I get a lot of support and knowledge from my doctor and my family is always there for me, my mum, my cousin, and my kids, they all care for me and try to support and guide me. I don’t get any support from my community in any way or form and life can be hard and it can be difficult sometimes and most times because I meant to follow my doctor’s recommendations of exercising, eating healthy meals, getting good sleep, and all the other advice, most of the time I am not able to fulfill that because of my other responsibilities, my job and just be too tired. It is hard and frustrating sometimes, especially living with this condition, it requires a lot of mental strength and willpower to keep putting in the work, but I do try my best to continue with my routine and try hard so I can be here for my kids.

Theme 2: Fatigue With Other Duties That Prevent Adherence to a Healthy Daily Routine

The second theme, “fatigue with other duties that prevent adherence to a healthy daily routine,” expressed the emotions of the participants through their statements and quotes, which was experienced by half of the participants. Within the mosaic of the six participants' experience, Unique 1, aptly identified as U1, stood out as a vivid embodiment of the theme "fatigue." Her narrative painted a poignant picture of the

profound exhaustion she grappled with daily in her quest to self-manage CHD. This fatigue was physical and mental, an all-encompassing weariness that tested her resilience.'U1's daily experience punctuated extreme exhaustion, exhaustion that stemmed from her relentless efforts to adhere to the prescribed healthy lifestyle guidelines. This fatigue seeped into every aspect of her life, casting a shadow over her well-being. It was a testament to the arduous nature of self-managing a chronic condition, where the battle is physical and waged in the corridors of the mind. Her work in the retail sector further exacerbated her physical and mental fatigue. The demands of her job, coupled with the challenges of dealing with CHD, created a formidable obstacle in her path toward maintaining a healthy lifestyle. The physical demands of her work and the unpredictable nature of retail took a toll on her, leaving her drained and fatigued. In'U1's narrative, we find a stark reminder of the relentless nature of chronic conditions and the toll they can take on an individual's physical and mental well-being. It serves as a call for heightened awareness and support for those who grapple with the burden of fatigue while navigating the path of self-management.'U1's experience is a testament to the resilience and determination of individuals facing these challenges, underscoring the need for compassion and assistance in their journey to well-being. She stated,

> I have been told by my doctor that I must follow these recommendations to be healthy, which I do but not all the time. Like I am supposed to get a lot of good sleep, but I ……really cannot because I have three kids, and you know how that works and it is almost impossible and I hardly get as much rest as I am supposed to, but I try to get some sleep here and there and that basically how it is right now

> concerning me getting a good sleep. The most part is not being able to be consistent in my health practices as I want to, but I do try here and there but fall short sometimes because joggling my kids and work can be difficult, especially as a single parent. I have three kids and I work full time, sitting at my desk all day which does not allow me the liberty to exercise or walk around. When I get home it is difficult because I am too tired, exhausted, and not able to exercise or even eat right sometimes because the kids running around, are attending to them and so many other chores to attend to, it is so difficult. Although I feel supported by my family, I still feel drained especially when I don't meet up with following my daily healthy routine and it does take a toll on my mental and physical health.

Theme 3: Hope to Sustain a Healthy Lifestyle for Its Benefits

The theme "f "hope to sustain a healthy lifestyle for its benefits" elucidates the participants' yearning to recognize the support, both emotional and physical, that they receive despite the various obstacles they may face in maintaining consistent adherence to the essential healthy lifestyle guidelines for CHD self-management. U12, a participant whose story radiates a profound sense of "hope," stands out as a shining example of unwavering determination to maintain a healthy lifestyle. In his narrative, he eloquently conveys the optimism that courses through his veins, breathing life into his pursuit of well-being. What is most striking is that this hope is not merely a passive sentiment; it is a dynamic force that propels him forward. Despite receiving his motivation and support from a relatively compact circle of himself and his family, U12 has harnessed the power of hope as a driving force in his life. It is this very aspiration that forms the bedrock of his

commitment to adhere to the recommended healthy lifestyle guidelines consistently. His outlook is positively painted, as he perceives his journey not as a burdensome obligation but as a beacon of hope, leading to a brighter, healthier future. The genesis of his sense of expectation is rooted in his earnest desire to maintain a healthy lifestyle, not only for himself but also for the broader community. U12 understands that the benefits of living healthy extend beyond individual well-being; it ripples through the community, reducing the risk of comorbidity and fostering a culture of health. His vision for a healthier tomorrow was infused with the power of hope, a force that urges him to embrace a life defined by well-being. ’12's statements are a poignant reminder of the transformative potential of hope and serve as a testament to the capacity of individuals to draw strength from within and carry the torch of inspiration, lighting the way not just for themselves but for those around them. His narrative underscores the profound impact that hope can have in pursuing a healthy lifestyle, radiating its positive influence in the quest for well-being. He stated,

Like I said before, my family encourage me and they help me to live right as I should and as for my community I don’t get much help, but from my friends, yes! I get help from them too. What the doctor told me about exercise, eating healthy and stopping smoking, and slowing down in drinking, to rest! of course helps me too. And I know when I am at home, I eat healthy and I exercise maybe twice a week but as you can see from my doctor, my family, my kids, I am supported and motivated which gives me comfort as I got people on my corner. I get support from some of my friends as they encourage me to be healthy. I also get support from my family which motivates me a lot to be healthy, eat

healthy, and help me to live right they show me that they don't want to lose me, but every now and then it's hard, quitting smoking, not drinking as much, try to exercise, so I try my best to keep up with following the doctor's recommendation for them. What I can say is that not for only myself but for everybody else too, to try to live a healthy lifestyle every day if you can, to keep yourself healthy especially for your family to be alive and well for them, and I do it, especially for my wife and kids.

Theme 4: Relief of Consistency in Maintaining a Healthy Routine Through Support

The theme of "relief of consistency in maintaining a healthy routine through support" captures the sense of comfort and reassurance voiced by the participants through their statements and quotes. The theme transcended the experiences of four distinct participants, each carrying their unique burdens and challenges while navigating the path of self-managing CHD. These individuals were not merely persevering; they were thriving, finding solace in their ability to excel despite their adversities in adhering to the recommended healthy lifestyle guidelines.'U8's narrative stood out as a beacon of hope and inspiration among this quartet of resilient individuals. In her daily journey of self-managing CHD, she discovered a profound sense of relief. It was a relief that emanated from the core of her being, a tranquil assurance that she was not merely enduring but flourishing. Her secret lay in the rich tapestry of support that surrounded her.'U8's journey illuminated the unwavering support of her family, who encouraged her and played a pivotal role in her relentless commitment to consistently follow healthy lifestyle guidelines. Her doctor's guidance provided a beacon of expertise and knowledge, further fortifying her path. The community, too, played its part by offering a supportive network

and a nurturing environment. For U8, the relief she experienced was not a passive sensation but an active affirmation that her efforts were not in vain. It was the assurance that her commitment to well-being was yielding results and leading to a healthier and more fulfilling life. This sentiment of relief spoke to her ability to not only overcome challenges but to transcend them, emerging on the other side more robust and more determined.'U8's narrative is a reminder that "Relief" is not merely the absence of challenges; it is the presence of resilience and the recognition that with the proper support and motivation, individuals can not only persevere but also excel in their journey of self-managing a chronic condition. Her story serves as an inspiring testament to the transformative power of determination and the profound sense of relief that can arise from the pursuit of a consistently healthy lifestyle. She stated,

> Well, my family tries to make sure that my meals are specifically in tune with what I need for my diet and my kids try to make sure I get good sleep and not be too tired, they try but may not be successful most times! It is a struggle sometimes to exercise, but I get a lot of push from my family to do what I need or what is recommended of me and try their best to support me. Well, finding out about my diagnosis was like a wake-up call and I have been doing this healthy lifestyle for maybe a year and a half now or two, but the first year of finding out about the disease, I didn't really understand or could keep up with what needed to be done to make me to continue to live a long life, so once I really was told and got a hang of what needs to be done I try to push myself and my family also pushed me too to continue to live healthy basically. So, I also get motivation by myself, for

> myself as I want to still be alive and so I try to eat right, exercise, live healthy and do all I need to do. I get motivation from my family mostly and from my doctor as they motivate me to live healthy. And this support brings comfort and encouragement to be better daily in following my healthy recommendations by my doctor and as such drives me to follow my healthy routine religiously. And I intend to follow these healthy lifestyles, so that I can continue to be healthy.

Theme 5: Worry About the Possibility of Adverse Events for Inconsistency With a Healthy Lifestyle

The theme of "worry about the possibility of adverse events for inconsistency with a healthy lifestyle" emerges from the anxiety and distress conveyed by the study participants through their statements and quotes in the transcript. This theme was shared by only three of the study participants as they revealed an anxious and uneasy feeling associated with the potential consequences of not maintaining consistency in adhering to the healthy lifestyle guidelines, fearing that it may lead to adverse events or outcomes. Diving deeper into the multifaceted spectrum of emotions experienced by the study participants, U2 painted a poignant picture of "worry" in her daily quest to self-manage CHD, and her narrative punctuated a palpable concern, a sentiment that weighed heavily on her heart. With a candid and unvarnished expression, she laid bare her worries about the potential repercussions if she faltered in her adherence to the recommended healthy lifestyle.'U2's trepidation was rooted in a keen awareness of the condition's gravity, and she possessed a profound understanding of the stakes involved, recognizing that any lapse in her consistent adherence could lead to distressing outcomes. Despite the

unwavering motivation she derived from her family, friends, and the supportive cocoon of her community, a shadow of apprehension loomed. The theme of "worry" enveloped her, shaping her daily choices and guiding her decision-making. It was as if she were treading on a tightrope, acutely aware of the potential pitfalls. U2's narrative is a striking reminder that even in robust support systems and a wellspring of motivation, the specter of concern and worry can persist, casting a shadow on the journey of self-managing a chronic condition. Her story resonates with the complex and often interwoven emotions accompanying this path to well-being, illustrating the importance of recognizing and addressing these nuanced sentiments. She stated,

I am close with my family and I have got support and good reason to do what is expected of me, that is eating healthy and exercising and all the others which is very important, which is for me to be healthy and that is what motivates me and that is why I am doing this and get motivated by myself, I get self -motivation, I am very strong on routine, and I exercise, and eat right as I changed my eating habits and eat way more healthier. I sleep well and I had to quit smoking and I get great support from my friends and family and my community. But this is a very serious condition and I understand that it is and what's at stake, that's why I am doing this to be healthy, and being healthy does call for a lot and like I just said, I do get support from my family as they encourage me to live a healthy life and also from my doctor supporting me with advice and recommendations which I do my best to follow but I do worry that if I don't continue or can't maintain my healthy routine I may not be around for my family but I do want to be here for my family and be alive and healthy for them. Not just be alive but also healthy for them and that has helped

me, transparent with them, so they know how to help you in any way they can, knowing what stage you are in and hold you down when you may fall short. I am a workaholic and sometimes I do deprive myself of sleep just to get the work done, also, I am African, I love African food and I like a lot of meat, those are the things that play into me not eating healthy, had to reduce it because of the dietary components in African foods, and like I told you before I use to smoke too, which plays into my life, but I had to change all that in terms of habits I need to reduce and some I need to cut off. Because I am anxious as to not do something to trigger my condition.

Theme 6: Gratitude for Receiving Support From Family, Faith, Health Practitioners, and the Community

The next theme, “gratitude for receiving support from family, faith, health practitioners, and the community,” explains the emotion of acknowledgment and appreciation expressed by the participants; this was experienced by 11 out of the 12 participants. The theme of "gratitude" wove a heartfelt tapestry of appreciation among the participants, who cherished the support systems that had fortified their journey of self-managing CHD. Their narratives echoed with a chorus of thanks, expressed not merely as a formality but as a deep-seated acknowledgment of the instrumental roles played by their family, faith, doctor, and community. In the symphony of gratitude, the statements of U7 emerged as a resonant note, offering a vivid portrayal of how these support systems had profoundly impacted her daily self-management experience.’U7's gratitude was a fleeting sentiment but a profound wellspring of warmth and thankfulness. It stemmed from the tangible support and resources she received from her family, faith, doctor, and

the nurturing embrace of her community. Their collective efforts were pillars of strength, motivating her to consistently follow healthy lifestyle guidelines. The undercurrent of gratitude in'U7's narrative was an ever-present reminder of the positive impact that these support systems had on her life. She did not merely acknowledge them in passing but spoke from the heart, expressing a deep gratitude for their unwavering presence. It was their encouragement and resources that facilitated her adherence to the recommended guidelines and minimized the challenges she faced along the way.'U7's statements were a poignant testament to the transformative power of gratitude. It underscores how expressions of thanks can transcend mere words and become a driving force, motivating individuals to persevere in the face of chronic conditions. Her story serves as a reminder that the support and resources provided by family, faith, doctors, and communities are not just a backdrop but an integral part of the journey toward well-being, eliciting profound feelings of gratitude that can inspire and uplift the human spirit. She stated,

> I have close friends and family that support me, even sometimes my neighbor, although we are friends too, she cooks for me, well that's also because I don't always like to cook and like eating out. And I am happy to have family members on the weekend that come to my house and cook for me, like I said I hate cooking. I would say the support helps, the motivation helps, and specifically the food helps too, to help me on this journey and it helps to have that support and those are the things that mainly help me physically, mentally, and emotionally which helps me to remain positive, so that helps! Well, my doctor is also very helpful and the healthy recommendations he gave to me, and he reminds and

> encourages me at every visit and explains what I need to do and to follow this health advise. Now I try to follow his recommendations religiously. I also have friends that give me boost and support so that I am not working this journey by myself, since they found out about what I was going through. I would also say that I am a believer in God, and I pray a lot God sees me through all of it and I receive a lot of support from my family too, as they motivate me to take my medication, remind me to exercise because they are always worried about me. I am thankful for my family checking up on me, especially my mum as she tries to see that I take care of myself.

Theme 7: Fear of Developing Comorbidity for Inconsistency to a Healthy Habit

Another participant, U3, voiced her apprehension, sharing her concern about the possibility of not being there for her children and husband if she were to falter in maintaining her self-management routine or consider giving up despite the significant support she receives from her family. U3 unveiled her profound emotions of apprehension with utmost vulnerability and shared the depth of her concern, a genuine and heartfelt worry. Her fear was anchored in the possibility that she might not be there for her cherished children and devoted husband. This very thought had the power to awaken her at night, a haunting specter that tugged at her heart. Within the intricate realm of emotions and fears, the theme of "fear of developing comorbidity for inconsistency to a healthy habit" resided, reaching out to half of the study's participants. This pervasive sentiment of unease resonated with these individuals who, much like U3, experienced trepidation about their health condition. Their uneasiness stemmed from the fear of not

being able to manage their condition consistently and the dire possibility of it worsening, potentially developing into comorbidity. For U3, this emotion of "Fear" transcended mere nerves. It was a profound sense of panic, a gnawing apprehension that emanated from the very depths of her soul. Her motivation was intricately tied to her family, and her commitment was fueled by a fierce determination to remain alive for them. The responsibilities and love she held for her children and husband were the pillars of her resilience. This profound connection underscored the potent emotions that she unveiled within her narrative.'U3's experience echoes the sentiments of many participants who grapple with these fears, and it serves as a poignant reminder of the powerful emotions that can shape the landscape of managing a chronic condition. She stated,

> Ahh! Yes, there are definitely many challenges when it comes to maintaining this healthy lifestyle other than have to take your medication, one of the challenges I face is definitely eating clean because as a truck driver, most times, I am gone for days and sometimes weeks and I am on the road for days, driving 8 to 10 hr and getting few hours of rest. Maybe I am going from Texas to California to drop a load and with those long driving, I would probably make some stops and on your way, you may not have good restaurants to eat but all you get is fast food. Even when you fix some food from home, when you are on your 16th hr its already gone or perhaps it might be gone before the first 5 hr……so may sometimes have to indulge in these fast foods that are available, because I have no choice, but I try to stay away from the greasy fried food as much as I can. Another challenge is sleep, my doctor recommend that I have at least 8 hr of sleep, which I can do

> when I am home. But when I am on the road it is hard. As a truck driver, I don't have insurance and I don't have monthly checkups, so it's only when it's critical that I go to the clinic and it's a struggle because I am constantly on the road so it's kind of hard and staying on course is difficult most times such as trying to exercise, eat healthy meals and getting a good sleep, which may not be possible most times because I hardly exercise may be too tired and lazy most times and as for eating, I try to eat healthily and get enough rest too. And I do worry because I want to make sure that I do my part, I also do try so I can be healthy and alive and be available for my kids and husband as well.

Theme 8: Balance to Keep Up Adherence to a Healthy Routine and Life Challenges

The theme "balance to keep up adherence to a healthy routine and life challenges" expressed the stability and steadiness of the participants through their statements and quotes in their responses to the interview. In the rich tapestry of participants' experiences, U7 emerged as a profound embodiment of the theme "Balance" in her arduous yet resolute journey toward sustaining a consistently healthy lifestyle. The participant's narrative was infused with a remarkable equilibrium, a sense of poise and harmony illuminating her path. It was a testament to the profound role that her support systems played in shaping her resilience.'U7's journey marked unyielding support from her family, an unbreakable bond that created a solid foundation for her unwavering commitment to adhering to the recommended healthy lifestyle guidelines. Beyond the familial embrace, her faith and active participation in her church community also played a pivotal role in establishing a sense of steadiness. It was as if these support systems

acted as anchors, grounding her in her pursuit of a balanced and healthy life. In her narrative, U7 underscored the transformative power of faith and family. Since her diagnosis, these pillars have been unwavering sources of strength, guiding her through the ups and downs of her condition. They not only provided emotional sustenance but also served as profound wellsprings of motivation. The unwavering support of her faith community and the unconditional love of her family were constant reminders that she was not alone in her journey. The theme of "balance" resonated throughout her narrative, as it was this sense of equilibrium that allowed her to navigate the complexities of self-managing her condition through healthy lifestyle habits. Her story is a testament to the vital role of faith, family, and community in fostering resilience and promoting the consistent pursuit of well-being in the face of a chronic condition. It is a reminder that the interplay of these elements can create a harmonious and balanced approach to health management. She stated,

Its been a good journey though and I can say that I had to come to terms with what I have to do and do what I have to do to maintain a healthy life. I would say long hours working and I would say being in an environment where I would have to sit for long hours, would be…..not helping that much with trying to keep up with my condition, but I can't really complain because, when I need my breaks my co-workers are supportive, but working really long hours doesn't really help me and also eating healthy as much as I would like to and exercise as much as I would want to. So, I would say working long hours is challenging, but other than that I would say everything else is good because I have my family and some very close family friends and they are the best they are always there for

me and sometimes bring food for me, are always there for me, supporting me in any way they can, being a driving force behind me. I am also a Christian, and since my diagnosis, God has been empowering me to stay resilient and strong in the face of my condition and provides me with the inner strength and courage I need to go on day-by-day with managing my condition. My church community also acts as a guiding light, encouraging me to remain hopeful, stay positive, and persevere on this path toward well-being. So, with all this support, I get a huge source of motivation and support emotionally and mentally that makes a whole difference and allows me to be consistent following my doctor's recommendations because it is a daily struggle.

Theme 9: Encouragement From Support and Resources to Sustain a Healthy Lifestyle

The theme of "encouragement from support and resources to sustain a healthy lifestyle" emerges from the reliance and dependency expressed by the participants in their statements and quotes within the transcript. The experience of this theme was shared among half of the study participants as they demonstrated a strong belief in and dependence on their support systems, available resources, and their resolve to uphold healthy lifestyle habits for the self-management of CHD consistently. However, U10 emerged as a distinct figure within the study, embodying the theme of "Encouragement." His unique journey of self-managing CHD exuded a profound sense of inspiration and equilibrium. Within the intricate tapestry of his daily life, he discovered encouragement not only to endure but to thrive in maintaining a healthy lifestyle. This encouragement was an essential driving force, drawn from a multifaceted support network that included his family, doctor, faith, and community. The cocoon of support enveloping Unique 10

provided a solid foundation for his unwavering commitment to the recommended healthy lifestyle guidelines. His family played an instrumental role in uplifting and motivating him to stay on this path to well-being. Furthermore, his doctor's guidance and faith-based community involvement contributed to the framework of encouragement, empowering him to make consistently healthy choices. The nurturing embrace of his community, with its shared values and beliefs, added a layer of reinforcement to his commitment. This collective support system was a pillar of strength, nurturing his determination and resilience, ultimately resulting in his steadfast adherence to a healthy lifestyle. Unique'10's journey is a testament to the transformative power of a robust support system in navigating the complexities of managing CHD. He stated,

> I am privileged to have wonderful people around me, my family, my church, my health care team but sometimes I say to myself if it is worth it living, but when I look at my grandchildren, my daughter and what they share with me, their love, their concern, you know, I shouldn't be staying with them but they bring me in to care for me and her husband too, bring me in as they suggested I stay with them so they can take care of me instead of me staying by myself. So, when I think and see the love they pour into me, it gives me hope and encouragement. My daughter and her kids sure keep me on my toes, but my daughter takes good care of me, makes sure I am okay, assists me to stop drinking alcohol, makes sure I take my medication, helps me with healthy meals, portions my food before she leaves for work, even if I am from African origin and we sure love our food which happens to be starchy, she portions the food so I don't eat too much. Also, she calls me

> from work to make sure I take my medication, because the doctor warns me to always take my medication, which I forget sometimes, and that is a huge support for me as I am at a time in my life when I might forget. My doctor's advice has also helped me to know what to do and how to stay healthy, especially taking good rest which has been helpful and changed my sleep pattern to be better and more restful. I don't get support from my community, but I also get support from my church as we fellowship together, read the bible and share the Word of God and encourage me, that whatever I am facing is temporary that I should focus on bigger things and other things and so they try to make me feel better. I don't know if you are a Christian or not, but they share the Word of God, which actually uplifts me each time and it is a privilege.

Theme 10: Boldness From Support and Motivation of Steady Self-Management of CHD

In a similar vein, U5 exudes a strong sense of confidence and unwavering belief in his ongoing commitment to maintaining a healthy lifestyle as a means of self-managing CHD in his statements and quotes. In his journey of self-managing his health condition, he passionately personified the theme "f "boldness from support and motivation of steady self-management of "HD" and was the sole participant who expressed this theme. The theme's characterization encapsulated the unwavering courage and fearlessness he radiated, signifying his firm commitment to adhering to the recommended healthy lifestyle guidelines. A constant wellspring of motivation and robust support systems underpinned his approach. His doctor's guidance, unwavering

encouragement from his family, and the collective backing of his community all played pivotal roles in bolstering his resilience. Moreover, he harnessed his innate self-determination to fortify his dedication. As a result, he consistently incorporated a trifecta of essential practices into his daily routine, including regular exercise, prioritizing restorative sleep, and maintaining a nourishing and wholesome dietary regimen. His relentless approach serves as an inspiring testament to the profound impact that unwavering support and personal determination can have in the pursuit of a healthy lifestyle. He stated,

> Yes, I have been keeping up with this healthy way of life for close to like 5 years now and my motivation came into being that my father died of this disease also and life is precious, I like life so much I wouldn't want to die soon and so I decided to dive into living healthy, because if I can prevent it, why not! Instead of waiting to pump myself with so much medication, but instead of that I choose to live a healthier life where I would not indulge in more of medication rather than treating it in an organic way of a healthy lifestyle. There is no drawback for me to continuing to live healthy and the only way I could stop doing this is when in as much as I think I am old, sometimes I hang out with some friends and get into drinking alcohol sometimes, which I really do anyways and when I want to party hard, which is rarely. Apart from that maybe when I can't work anymore, but now that I have my legs, I will keep working out and doing what I can so I can stay off taking medication. I work out every day and my alarm wake me up every day at 5 am and my day ends at 9 pm because I try to sleep up to 8 hr every day. I eat more

vegetables and stay away from food that is high in fat, and I just try to stay healthy. I get support from my family, especially my daughter, she calls me to make sure I keep up with my workout routine, and like I said earlier I also get support from my community. We have a park close by where there is a community-sponsored program that supports people and motivates people which I am a part of it is a keep fit program that helps me to exercise, help me to stay motivated, work out daily, build friendships, and gives me support to participate in various activities.

Recommendations

The study's findings provide ample evidence that all participants exhibited a high level of knowledge regarding the healthy lifestyle guidelines necessary for the self-management of CHD. They were well-informed about the perceived risks and benefits of consistently adhering to a healthy lifestyle. Participants acknowledged that their doctors were pivotal in educating them on these beneficial tips for managing their condition. Some participants, in addition to medical guidance, conducted their research, while their families also engaged in seeking information through online resources to ensure adherence to the healthy lifestyle guidelines.

The study revealed that participants receive substantial support and resources from their families and medical practitioners. Some participants found extra motivation from within themselves and their communities, whether through their faith-based communities or the broader community network. Participants emphasized that their families, doctors, and personal commitment motivate them to adhere to a healthy lifestyle

consistently. The support and resources underscore the substantial support their families provide in maintaining a healthy lifestyle. However, the findings also highlighted that most participants still require assistance consistently maintaining the recommended healthy lifestyle guidelines. Nearly all participants attributed their careers or jobs to their challenges in adhering to their doctors' lifestyle recommendations. Many, especially women, expressed the difficulties of balancing their professional responsibilities with family obligations, which posed a significant challenge in maintaining consistent adherence to a healthy lifestyle.

Additionally, only one participant, a retired man, consistently adhered to a healthy lifestyle. His retirement status allowed him to allocate more time to his health, but what indeed bolstered his commitment was his active involvement in a supportive community group. This community provided the emotional fortitude and guidance he needed to effortlessly adhere to the recommended healthy lifestyle practices. Hence, I strongly recommend seeking out and engaging with community support groups for retired individuals struggling with maintaining a healthy lifestyle. These groups can offer the emotional support needed and a sense of camaraderie and guidance crucial for consistently self-managing their condition through maintaining a healthy lifestyle.

Furthermore, the primary recommendation from this study is the implementation of a health policy that facilitates the establishment of community support groups tailored for individuals dealing with chronic diseases. These groups should actively reach out, persuade, and encourage patients to join. Such an initiative can be a powerful motivator, assisting in maintaining a healthy lifestyle while providing emotional support, strength,

and guidance. The recommendation of community support groups was met with enthusiasm by participants during follow-up interviews, as they expressed gratitude for the suggestion and pledged to join these groups. They recognized the need for motivation and support to sustain a healthy lifestyle and provide emotional strength and guidance essential for self-managing CHD.

Summary

The current study examines the lived experiences in adhering to and not sticking to healthy behaviors that manage CHD among low-income, middle-aged, and older AAs. However, the study was approved by the IRB of Walden University prior to conducting the study, and ethical considerations of the study focused on privacy, confidentiality, and handling of the study data during and after the study. Recruiting the participants was conducted using flyers to advertise participation, and the inclusion and exclusion criteria are straightforward. The researcher contacted interested participants, and the informed consent packages were sent via regular mail, and some of the consent packages were sent via email to the participants. The researcher conducted the data collection process via a telephone interview that lasted for 30 min, and the HBM approach informed the interview questions. The analysis process was cumbersome because of the enormous amount of data generated, and the researcher reviewed and analyzed the data to answer the RQs. The researcher used the Diekelmann hermeneutic phenomenological, seven-step approach for the data analysis and presented an in-depth understanding of the complex practical lived experiences of the population. The findings generated categories and themes classified to tell a textual story based on the participants' combined lived

experiences on their CHD self-management (Castleberry & Nolen, 2018). In Chapter 5, I will reiterate the purpose of the study, present an in-depth interpretation and explication of the findings in the context of the hermeneutic phenomenological approach, propose practical recommendations for further research within the margin of the present study, provide implications for social change, and a conclusion.

Chapter 5: Discussion, Conclusions and Recommendations

Introduction

In this qualitative phenomenological study, I examined the lived experiences of self-managing CHD among middle-aged and older, low-income AAs living in Katy, Texas. I sought to understand the study population's adherence to healthy behaviors recommended by health care practitioners. As discussed in Chapters 1 and 2, some studies show that minimizing the impact of CHD in the population of middle-aged and older adults requires crucial lifestyle changes. The research also shows that CHD with or without comorbidity is very present among the aging population; 1 in 3 older U.S. adults with CHD experience comorbidity (J. Brown et al., 2021; Ripe, 2018; Yu et al., 2018).

The HBM approach informed the development of the interview questions. I used the Diekelmann hermeneutic phenomenological approach, which consists of seven steps, for the data analysis and to answer the RQs. The findings of this study were classified in two core categories, experiences in adherence and enhancing adherence recommendations, with seven subcategories including consistency in management, support and resources, motivation for adherence, challenges in maintaining consistency, understanding recommended practices, recognized benefits of adherence, and perceived consequences of inconsistency. The discussion covers 10 themes including sadness and frustration from the inability to sustain the recommended lifestyle; fatigue with other duties that prevent adherence to a healthy daily routine; hope to sustain a healthy lifestyle for its benefits; relief of consistency in maintaining a healthy routine through support; worry about the possibility of adverse events for inconsistency with a healthy lifestyle;

gratitude for receiving support from family, faith, health practitioners, and the community; fear of developing comorbidity for inconsistency to a healthy habit; balance to keep up adherence to a healthy routine and life challenges; encouragement from support and resources to sustain a healthy lifestyle; and boldness from support and motivation of steady self-management of CHD. I will interpret the findings, which I presented in Chapter 4, in this chapter, as well as offer recommendations for further studies, discuss possible implications for positive social change, and provide a conclusion to the study.

Interpretation of the Findings

The findings of this current study, which I presented in Chapter 4, fall into two main categories, experiences in adherence and enhancing adherence recommendations, with seven subcategories. In the discussion, I will address 10 themes. I will connect the themes to the RQs and to the peer-reviewed literature discussed in Chapter 2.

Categories

The main category, experiences in adherence, established the experiences and challenges shared by the participants as they navigate consistency in adhering to the healthy lifestyle guidelines recommended by their doctors to help self-manage CHD. This category gave rise to four subcategories, including consistency in management, support and resources, motivation for adherence, and challenges in maintaining consistency. As expounded in Chapter 4, the subcategory consistency in management intricately unravels the experiences wherein participants consciously embraced the potential to navigate a consistently healthy lifestyle modification while self-managing CHD. An unwavering

commitment to maintaining the healthy lifestyle practices prescribed by health practitioners was seen as the bedrock of self-managing CHD. Such commitment eschews lapses or occasional inconsistencies, demanding a resolute discipline and dedication to fostering a healthier and more sensible way of life. The multifaceted dimensions of participant experiences in garnering support and resources were derived from the analysis of the subcategory support and resources.

This exploration sheds light on the varied sources of encouragement, motivation, and tangible resources that participants drew upon to consistently maintain a healthy lifestyle. Participants narrated comprehensive tales of receiving support from an expansive network, including family members, friends, doctors, communities, neighbors, and their faith community. This constellation of support mechanisms emerged as a formidable driving force, serving as a catalyst and sustained impetus for participants in their adherence to the prescribed healthy lifestyle recommendations. The third subcategory, motivation for adherence, identified the motivation for maintaining the healthy lifestyle guidelines received by the participants and the driving force of their commitment to consistently adhering to these guidelines. Every participant in the study showed different levels of consistency, ranging from high to low, in maintaining a healthy lifestyle. I gleaned the diverse challenges participants confronted in adhering to the recommended healthy lifestyle guidelines from the subcategory challenges in maintaining consistency. Notably, virtually all participants grappled with impediments along their journey to sustain a healthy lifestyle practice, as well as the physical and

mental exhaustion arising from additional responsibilities that pose potential obstacles to the seamless adherence to prescribed healthy lifestyle guidelines.

The second main category, enhancing adherence recommendations, substantiates the encounters shared by the study participants as they explained their knowledge about the self-management of CHD as well as the benefits and perceived risks associated with consistently following and navigating adhering to the healthy lifestyle guidelines recommended by their health practitioners. This category yielded three subcategories, including understanding recommended practices, recognized benefits of adherence, and perceived consequences of inconsistency. The subcategory understanding recommended practices resonated among all study participants. It serves as a conduit to articulate their depth of knowledge and comprehension in effectively self-managing CHD, coupled with the requisite healthy lifestyle routines. This subcategory elucidates that participants demonstrated a comprehensive and well-informed understanding of CHD and the multifaceted lifestyle modifications essential for self-management. Their knowledge emanated from diverse sources, including health care practitioners, familial guidance, and independent research endeavors. The subcategory recognized benefits of adherence delves into the participants' nuanced understanding of effectively self-managing CHD and the associated healthy lifestyle routines. Emanating from various sources, including health care practitioners, familial guidance, and individual research endeavors, the participants demonstrated a profound comprehension of CHD and the diverse lifestyle modifications imperative for successful self-management. The subcategory perceived consequences of inconsistency unravels the participants' acute awareness of the potential

repercussions stemming from a lack of steadfast adherence to the healthy lifestyle practices requisite for the self-management of CHD. Each participant unequivocally affirmed their cognizance of the conceivable risks entailed by any lapses in their commitment to proper self-management and the consistent observance of the recommended healthy lifestyle guidelines.

Main Findings

Theme 1: Sadness and Frustration From the Inability to Sustain the Recommended Lifestyle

The first finding, unveiled within the theme of sadness and frustration from the inability to sustain the recommended lifestyle encapsulates the emotional and physical toll experienced by participants, notwithstanding the encouragement, motivation, and support emanating from their respective support systems aimed at fostering consistency in adhering to the recommended healthy lifestyle guidelines for CHD self-management. This finding serves as a poignant representation of the complex interplay between external challenges and internal aspirations, shedding light on the emotional intricacies woven into participants' endeavors to uphold the recommended lifestyle for CHD self-management. The finding also highlights the challenges and limited support that marked the participants' journey toward consistently maintaining a healthy lifestyle and the struggle to prioritize well-being amid other relentless demands.

Some of the studies reviewed in Chapter 2 expressed that a healthy lifestyle that enhances health and well-being is critical and that recommended health-promoting programs enhance patients' adherence capacity to lifestyle modifications and manage

chronic diseases. Andualem et al. (2020) and Tsai et al. (2020), for instance, posited that overall adherence to healthy living with sound awareness is effective in sustaining healthy lifestyle modifications as well as recommended programs or interventions help to increase adherence capacity to lifestyle modifications. The researchers also proposed that effective strategies that enhance adherence to healthy lifestyles are critical for proper chronic disease management and proposed that an effective home-based lifestyle management program tailored for patients is fundamental in minimizing chronic diseases as well as comorbidity. The findings of the present study mirror those the previously discussed studies. The participants in the present study described vexation and dissatisfaction as they faced various challenges and struggles that resulted in their inability to sustain healthy lifestyle guidelines consistently. This finding resonates with the findings of previous studies about developing efficient techniques or approaches to enhance consistency and adherence to healthy lifestyle guidelines for patients to adequately maintain healthy living.

Additionally, Gadowski et al. (2021) also deduced that barriers to maintaining healthy lifestyle guidelines are enormous and that barriers such as lack of motivation to healthy lifestyle behaviors are critical and can be minimized through cost-effective home-based physical activity and nutrition programs that promote healthy lifestyle behaviors as well as reduce the risk of chronic diseases. Thus, the findings of the present study and the studies discussed in Chapter 2 bolster the perception that consistently adhering to healthy lifestyle practices is key, and deducing solutions to aid patients in being consistent in their healthy routine should be prioritized.

Theme 2: Fatigue With Other Duties That Prevent Adherence to a Healthy Daily Routine

The second finding was revealed in the theme, "*fatigue with other duties that prevent adherence to a healthy daily routine,*" and it captures the experiences of grappling with the formidable challenge of balancing career and other responsibilities with the demands of self-managing CHD while endeavoring to adhere to a healthy lifestyle. The finding uncovers how the physical rigors of work, social demands, and concurrent responsibilities presented a daunting landscape of extreme exhaustion, physically drained, and mentally fatigued while relentlessly pursuing a healthy lifestyle for the self-management of CHD.

As expounded upon in Chapter 2, some of the studies, particularly by Bak-Sosnowska et al. (2022), Zabler et al. (2018) and Skolarus et al. (2020) described that high perceived stress is related to comorbid conditions and insufficient self-management of CHD. They confirmed that healthy habits and practices are paramount in the management of CHDs and other chronic diseases. The previously discussed studies underscored the pivotal role of SDOH in the self-management of chronic diseases, mainly focusing on the intricate mechanisms through which SDOH influences CVD outcomes. Delving into factors such as income, neighborhood dynamics, and environmental conditions, the studies elucidated the profound impact of these SDOHs as fundamental contributors to chronic illnesses. The SDOHs were considered significant impediments to the consistent management of chronic conditions.

The previously discussed studies further established the prevalence of chronic illnesses within low-income and minority populations, shedding light on a nexus of lifestyle factors that exacerbate health disparities. Constrained access to affordable housing, nutritious foods, and recreational facilities, coupled with elevated stress levels, emerged as a constellation of factors contributing to adverse health outcomes in these communities. The authors of the studies emphatically advocated for a comprehensive approach to address the root causes of chronic diseases, including structural racism, discrimination, and income and wealth inequality. The authors of the previously discussed studies in Chapter 2 proposed implementing local, state, and national policy measures to promote health care equity and address the societal factors perpetuating health disparities.

However, in the context of the present study, participants articulated the challenges they faced in balancing professional obligations, such as their jobs and other responsibilities, with the demands of self-managing CHD through adherence to healthy lifestyle guidelines. This nuanced exploration revealed a critical intersection between income as a SDOH and the obstacles individuals face in consistently maintaining healthy practices. The participants, driven by financial constraints and career dedication, encountered difficulties adhering to healthy lifestyle practices, underscoring the intricate interplay between socioeconomic factors and health behaviors.

In summary, the alignment between the current study's findings and the previously discussed research in Chapter 2 reinforces the notion that income, as a SDOH, is a barrier to the sustained adoption of healthy lifestyle practices. The participants'

struggles reconciling professional commitments with health management underscore the urgent need for multifaceted interventions that address systemic issues and individual challenges to promote health equity.

Theme 3: Hope to Sustain a Healthy Lifestyle for Its Benefits

The third finding delves within the overarching theme of "*hope to sustain a healthy lifestyle for its benefits."* This theme serves as an illuminating response to the second RQ as it encapsulates the profound understanding, robust support, and abundant resources bestowed upon the participants, counterbalancing the multifaceted obstacles threatening their unwavering commitment to adhering to the healthy lifestyle guidelines essential for CHD self-management. The findings articulated an intense feeling of "Hope" emanating from a resolute determination to perpetuate a healthy lifestyle. This determination finds its roots in the unwavering support and resources derived from the participant's support system, which is comprised of family, physicians, and other support systems. This finding exemplifies the transformative power of informed awareness and robust support systems in fostering resilience and fortitude amid the challenges posed by inconsistent adherence to the prescribed healthy lifestyle practices.

As expounded in Chapter 2, several foundational studies underscored the importance of fostering healthy lifestyle literacy and awareness, positioning it as a fundamental element for adherence to healthy behaviors crucial in managing various chronic conditions, including CHD. In consonance with this perspective, Froze et al. (2019) and Gosadi et al. (2020) illuminated the pivotal role of health literacy in cultivating adherence to healthy lifestyle practices. These studies posited that a

heightened level of health literacy could enhance understanding of disease knowledge, subsequently translating into adopting a healthier lifestyle.

Furthermore, Froze et al. (2019) and Gosadi et al. (2020) delved into the intricate dynamics of health literacy, suggesting that it not only contributes to an increased understanding of disease knowledge but also serves as a catalyst for the consistent practice of a healthy lifestyle. Notably, these fundamental studies unveiled a trend where patients often need more awareness and motivation to adhere to healthy lifestyle guidelines. In response, the studies proposed that physicians wield significant influence over a patient's lifestyle choices through education, empowering them with the knowledge necessary for effective self-management and impressing upon them the benefits and consequences of adhering to or deviating from prescribed health guidelines.

Affirming the findings of these pivotal studies, the participants in the present study articulated that they received comprehensive information from their health care practitioners, families, and independent research endeavors. This wealth of knowledge gave them an in-depth understanding of the potential consequences of inconsistent adherence to healthy lifestyle practices essential for CHD self-management. Therefore, the resonance between the current study's findings and those previously discussed in Chapter 2 underscores the critical role of patient education and awareness in fostering a holistic understanding of the condition, its associated risks, and benefits. It reinforces the notion that health practitioners should prioritize cultivating a robust patient-doctor relationship, ensuring that patients are well-informed about the stakes involved and motivating them to adhere to the prescribed healthy lifestyle guidelines consistently.

Theme 4: Relief of Consistency in Maintaining a Healthy Routine Through Support

Within this fourth finding emerges the theme of "*relief of consistency in maintaining a healthy routine through support.*" This theme encapsulates the participants' journey, showcasing their excellence, resilience, and comfort as they navigated the intricate landscape of self-managing CHD. Such success is attributed to the robust backing, resources, and informed knowledge derived from their support systems, notably their families and doctors. This finding highlights the pivotal role of support systems and informed knowledge in alleviating challenges and promoting a steadfast commitment to healthy living practices among individuals grappling with CHD. This finding affirms the sense of assurance stemmed from the wealth of knowledge and resources provided from support systems to instill a profound understanding of the condition's self-management requirements as well as the high stakes involved and underscored importance of maintaining a consistent healthy lifestyle for optimal CHD self-management. Thus, the finding highlights the pivotal role of support systems and informed knowledge in alleviating challenges and promoting a steadfast commitment to healthy living practices among individuals grappling with CHD.

As expounded upon in Chapter 2, pertinent studies such as those conducted by L. Liu et al. (2020) and Chahardah-Cherik et al. (2018) have underscored the significance of overcoming inadequate health literacy and the lack of awareness as clandestine impediments hindering the attainment of improved self-care, the adoption of positive health behaviors, and the ability to make well-informed choices crucial for the effective management of chronic diseases. Consequently, elevating understanding and enhancing

health literacy emerges as a critical imperative within public health, integral to successfully implementing management strategies. A nuanced comprehension of CHD, coupled with an intrinsic understanding of its self-management intricacies, is pivotal for acquiring knowledge and cultivating an informed approach conducive to sustaining a healthy lifestyle.

In this context, the participants in the present study showcased a remarkable depth of understanding regarding the healthy lifestyles imperative for the effective management of CHD, which contributed to relief in their consistency in maintaining a healthy lifestyle. Each participant demonstrated a comprehensive comprehension of the condition, encompassing a nuanced understanding of the diverse lifestyle approaches deemed essential for its effective management. The findings gleaned from this study corroborate and align with key studies elucidated in Chapter 2. Notably, the participants attributed their knowledge of understanding the disease and the recommended self-management practices critical for effectively managing the condition to various sources, including their health care providers, family members, and independent research endeavors. This multifaceted approach to knowledge acquisition and understanding exemplifies the proactive engagement of individuals in managing their health, thereby contributing to the growing body of evidence advocating for robust health literacy initiatives and strategies aimed at empowering individuals in their self-management journey, particularly in the context of CHD.

Theme 5: Worry About the Possibility of Adverse Events for Inconsistency With a healthy Lifestyle

The fifth finding of this present study is revealed in the theme, "*worry about the possibility of adverse events for inconsistency with a healthy lifestyle*." This theme encapsulates the anxiety experienced by study participants concerning the potential repercussions linked to not consistently adhering to healthy lifestyle practices, with a prevailing fear that such inconsistency may result in adverse outcomes. These challenges gave rise to an anxious feeling associated with the perceived consequences, emphasizing the significance of maintaining a healthy lifestyle to avert potential adverse events or outcomes. This finding uncovers the apprehensions about adhering to the daily routine of self-managing CHD and the potential pitfalls associated with inconsistency, shaping, and guiding the participants' decision-making process, ensuring steadfast adherence to healthy lifestyle practices. Hence, the challenges fortunate an anxious feeling associated with the perceived consequences, emphasizing the significance of maintaining a healthy lifestyle to avert potential adverse events or outcomes.

Therefore, in Chapter 2, several studies, including works by Hardman et al. (2020), Zhang et al. (2019), and Zabler et al. (2018), have shed light on the challenges faced by many low-income AA adults. These individuals contend with real-life situations complicated by a high burden of stress, limited access to health care and resources, and elevated environmental and social risks. The research further suggests that these challenges contribute significantly to the risk of comorbidity and inconsistency in adhering to healthy lifestyle practices to manage chronic conditions. However, the

constrained access to health care and resources among low-income AA adults may also impede the provision of quality care by physicians or practitioners who typically offer regular patient-oriented risk consultations as part of routine care. Additional insights from Chumpunch and Jaraeprapal (2022) and Skolarus et al. (2020) underscore the role of major social determinants in fostering poor commitment to a healthy lifestyle. These determinants impact unhealthy behaviors and contribute to the inconsistency in maintaining a healthy lifestyle, influencing self-management behaviors in most AAs. Consequently, the present study's findings align with those discussed in Chapter 2, highlighting that the challenges, anxiety, fears, and worries experienced by the study participants contribute to the lapses they encounter in sustaining a healthy lifestyle. Notably, the study suggests that such inconsistency is mitigated through robust support systems from family and, specifically, the community or support groups.

Theme 6: Gratitude for Receiving Support From Family, Faith, Health Practitioners, and the Community

The sixth finding is delineated in the overarching theme of *"gratitude for receiving support from family, faith, health practitioners, and the community*," which crystallizes the profound sense of acknowledgment and appreciation universally expressed by almost every participant. This finding resonates with a genuine recognition of the pivotal roles played by the participants support system, thereby instilling deep gratitude in the participants for the extensive support and resources bestowed upon them. This exploration sheds light on the varied sources of encouragement, motivation, and tangible resources that participants drew upon to maintain a healthy lifestyle consistently.

This constellation of support mechanisms emerged as a formidable driving force, serving as a catalyst and sustained impetus for participants in their relentless pursuit of adhering to the prescribed healthy lifestyle recommendations. The finding eloquently conveyed the profound appreciation for the unwavering support and resources emanating from support systems, underscoring their indispensable role in participant's journey towards sustaining a healthy lifestyle.

As explored in Chapter 2, the significance of the relationship between social elements and adherence to lifestyle modifications cannot be overstated, as heightened perceived stress correlates with comorbid conditions and inadequate self-management of CHD. Research by Bak-Sosnowska et al. (2022) and Schaffler et al. (2018) underscored that the inclination to embrace health-relevant behaviors, with primary care physicians and practitioners often serving as pivotal factors, propels patients through effective physician-patient communication, prompting self-management practices. These studies indicate that psychological variables ought to be considered when evaluating patient adherence to maintaining a healthy lifestyle, emphasizing the willingness to adhere to health-relevant habits, where health practitioners play a crucial role in motivating patients. The current study's findings reinforce that support and resources are crucial for fostering consistent adherence to a healthy lifestyle. The participants in this study affirmed that they received substantial support, particularly from their families and health care practitioners. The support, encompassing motivation, drive, and tangible resources, is vital in assisting individuals with CHD to adhere to healthy lifestyle practices consistently. Thus, the findings align with prior studies discussed in Chapter 2,

emphasizing the pivotal role of mental and physical motivation and support from participants' support systems, especially their doctors, in ensuring the sustained self-management of CHD.

Furthermore, prior studies discussed in Chapter 2 also line up with the present study's findings as it delineated instances of motivation and encouragement, elucidating the dynamic interplay of familial and community support in enhancing their healthy lifestyles. Various programs and initiatives, coupled with creating safe living environments, emerged as tangible manifestations of the concerted efforts by families and communities to fortify patients in their pursuit of health and well-being. Additionally, describes the resilience and appreciation for the robust support systems that significantly contribute to the consistent self-management of CHD through adherence to healthy lifestyle practices.

Theme 7: Fear of Developing Comorbidity due to Inconsistency in a Healthy Habit

The seventh finding is uncovered in the theme, "*fear of developing comorbidity due to inconsistency in a healthy habit,"* which emerges as a poignant revelation and provides a comprehensive exploration to address the first RQ. This thematic element delves into the intricate emotions of apprehension of sure participants with a heightened vulnerability and profound concern. Their unease is deeply rooted in the realization that a failure to sustain their self-management routine might unfold into the severe complication of comorbidity. The finding described the emotion of "fear" coupled with a profound sense of trepidation that emanates from the awareness that any inconsistency in adhering to healthy lifestyles might exacerbate the participant's condition, potentially culminating

in comorbidities. As such, the participant's anxiety underscores the gravity of the condition and the pivotal role consistency plays in averting adverse outcomes.

However, Chapter 2 explored several studies revealing that support groups and community support are pivotal factors in enhancing health status and the quality of care. Studies by Alshammari et al. (2020), M. Lee et al. (2020), and Jeon et al. (2020) have all provided robust evidence supporting the influential role of community support in maintaining healthy behaviors. Comprehensive programs and community-based primary care institutions focusing on the self-management of chronic diseases have significantly improved healthy behaviors and lifestyles for patients. Participants in the study who were connected to support groups and received community support and motivation exhibited remarkable consistency in maintaining a healthy lifestyle. They expressed a sense of boldness in their experience of sustaining a healthy lifestyle. The findings of this current study align with the research findings of crucial studies discussed in Chapter 2. Some study participants expressed significant motivation, encouragement, and support from the community and support groups, contributing to their consistent and steadfast adherence to healthy lifestyle routines to manage their CHD condition.

Theme 8: Balance to Keep Up Adherence to a Healthy Routine and Life Challenges

The eighth finding was elucidated within the theme *"balance to keep up adherence to a healthy routine and life challenges.*" This theme illuminated the delicate equilibrium achieved by the participants, owing to their informed knowledge base and the resources derived from their support systems. The theme articulated the pivotal role played by support systems in fostering a sense of equilibrium and stability for the

participants and described the synergistic relationship between knowledge, resilience, and a robust support system, culminating in the adept navigation of the complexities associated with self-managing CHD. This finding accentuates the profound impact of a well-informed and supportive environment in fostering sustained adherence to healthy routines, thereby contributing to the participants' resilience and success in managing their health.

In alignment with the insights gleaned from Chapter 2, where the studies of Cajita et al. (2016) and Abdo et al. (2019) expounded upon, a discernible positive correlation between health literacy and knowledge was illuminated. The intricate interplay between health literacy and an informed understanding of healthy lifestyle practices emerged as a pivotal determinant in the effective management of CHD, as elucidated by the mentioned studies. Cajita et al. (2016) and Abdo et al. (2019) underscored the instrumental role of health literacy in motivating patients to manage their conditions proactively, fostering informed decision-making, and positively impacting self-management behaviors.

A noteworthy finding from the current study resonates with these key studies, affirming that all participants exhibited a high level of proficiency in comprehending the recommended healthy lifestyle practices. Their profound understanding extended to a nuanced awareness of the manifold benefits intricately linked to the steadfast adherence to such practices. The study findings not only corroborate the independent predictors of low health literacy identified in previous studies, encompassing factors such as age, race/ethnicity, years of education, and cognitive function but also attest to the

participants' comprehensive awareness of the perceived benefits associated with consistently adhering to healthy lifestyle routines for managing CHD.

The present study further underscores the significance of promoting health literacy, particularly among individuals grappling with chronic conditions. The participants' wealth of knowledge and adeptness in understanding the advantages of sustained adherence to healthy lifestyle recommendations served as a motivational catalyst, propelling them to consistently strive to integrate these practices into their lives. This nuanced comprehension fortifies their commitment to managing CHD. It accentuates the potential role of tailored interventions and public health policies to enhance health literacy in fostering enduring support and motivation for individuals with chronic conditions.

Theme 9: Encouragement From Support and Resources to Sustain a Healthy Lifestyle

The ninth finding was incorporated from the theme *"encouragement from support and resources to sustain a healthy lifestyle,*" which revealed the participants' confidence and dependency on the encouragement, support systems, and available resources that propel participants to uphold maintaining the recommended healthy lifestyle guidelines consistently.

Several studies discussed in Chapter 2 provide compelling evidence of the connections between behavioral health and the risk of CHD. Veronese et al. (2020) and Levine et al. (2021) uncovered that consistently adhering to a healthier lifestyle mitigates the risk of most chronic diseases. The psychological well-being of individuals with CHD is crucial for adherence to CHD self-management, as their attitudes, habitual patterns of

thinking, and emotional states form integral aspects of the psychological dimension of CHD self-management. These factors influence adherence to healthy lifestyle recommendations, subsequently impacting their health. The findings from the present study emphasize that receiving robust support and resources facilitates sustained adherence to a healthy lifestyle. The study participants affirmed receiving motivation and encouragement from their families, doctors, faith communities, and the broader community.

Consequently, these findings align with the conclusions from some of the studies discussed in Chapter 2. They underscore that CHD is effectively managed by adhering to modifiable lifestyle factors such as refraining from smoking, maintaining a healthy diet, and engaging in regular exercise. The motivation and support from the participants' support systems play a pivotal role in encouraging consistent adherence to a healthy lifestyle.

Theme 10: Boldness From Support and Motivation of Steady Self-Management of CHD

As expounded in Chapter 4, this tenth finding is embedded in the theme of "boldness from support and motivation of steady self-management of CHD," which accentuates a notable consistency in sustaining a healthy lifestyle. This finding revealed the unwavering commitment of the participants to sustaining a healthy lifestyle, which was dependent on the support systems and resources received. Hence, this finding uncovers the association between consistency in maintaining healthy lifestyle guidelines

and the significance and effectiveness of support systems in sustaining these healthy practices.

Delving into the scholarly discourse presented in Chapter 2, the revelations of G. Liu et al. (2018) and Freisling et al. (2020) underscore the pivotal correlation between unwavering commitment to a healthy lifestyle and a profound reduction in the incidence and mortality rates of CVD among the adult populace. Their comprehensive insights illuminate the transformative potential of embracing healthy lifestyles, acting as formidable guardians against the onset of chronic diseases, thereby curbing the ominous specter of multimorbidity. Drawing from the enlightening perspectives of Nyberg et al. (2020), the interplay between a robust, healthy lifestyle and the accrual of disease-free life years comes to the forefront, unveiling a compelling narrative of substantial gains in the temporal expanse lived without major noncommunicable diseases from the age of 40 to 75 in both genders. Consequently, it is imperative to sustain the rigorous self-management of CHD through conscientious attention to diet, exercise, and quality sleep, which entails a steadfast commitment to enduring healthy lifestyle practices, a linchpin strategy designed to mitigate the risk of comorbidity and safeguard the sanctity of a wholesome existence. The insights of the knowledgeable participants, resonate with the existing research, validating the cascading impact of maintaining a consistent healthy regimen in the self-management of CHD and a myriad of chronic diseases. This synthesis of findings aligns seamlessly with the overarching narrative that underlines the formidable role of disciplined, healthy habits in the labyrinthine landscape of CHD management, effectively minimizing the looming specters of comorbidity and

multimorbidity while alleviating the burden imposed by an array of chronic diseases, including CHD.

The Influence of the Health Belief Model

The study significantly contributed to applying the HBM. This framework centers on the pivotal role of attitudes and beliefs in comprehending and foretelling individual behavioral responses to diseases, preventive health measures, and received treatment. The HBM is a valuable and systematic theoretical foundation for probing health behaviors; the study's revelations underscored the impact of six key constructs within the HBM framework. These constructs, namely risk susceptibility, risk severity, action benefits, barriers to action, self-efficacy, and cues to action, emerged as robust predictors for participants adhering to the recommended healthy lifestyle behavior (Jones et al., 2015; Luquis & Kensinger, 2019).

Notably, the interconnections among these constructs cannot be understated. The amalgamation of these factors significantly shapes health-related perceptions and effectively predicts behaviors associated with positive health outcomes. The study thus sheds light on the intricate web of influences within the HBM framework, elucidating the multifaceted dynamics that contribute to individuals adopting and sustaining health-promoting behaviors.

Perceptions of Risk Susceptibility

Perceived susceptibility involves individuals' beliefs regarding the likelihood of encountering a specific risk or condition. In this study, participants' concerns about the potential development of comorbidity due to inconsistencies in maintaining a healthy

lifestyle emerge as a critical aspect. The construct of perceived susceptibility aligns with the study's findings on "worry about the possibility of adverse events for inconsistency with a healthy lifestyle," "fear of developing comorbidity for inconsistency with a healthy habit," and "boldness from support and motivation of steady self-management of CHD." The perceived susceptibility to comorbidity risk is intricately linked to participants' expressions of worry, fear, and boldness. Consequently, these behavioral responses become predictive indicators of participants' commitment to sustaining a healthy lifestyle. Within the HBM framework, the study suggests that individual beliefs concerning health risks play a pivotal role in predicting subsequent health behaviors. In this context, participants' belief in the potential development of comorbidity precedes their motivation and efforts to adhere to healthy lifestyle recommendations consistently. This nuanced understanding highlights the psychological underpinnings that shape individuals' commitment to health-promoting behaviors.

Perceptions of Risk Severity

The construct of risk severity delves into individuals' emotions and convictions regarding the gravity of the potential consequences of deviating from healthy lifestyle guidelines. In the context of self-managing CHD, the repercussions of not upholding a healthy lifestyle are notably severe, posing a heightened risk of adverse events or the development of comorbidity. The study's observations, as evidenced in "fear of developing comorbidity for inconsistency with a healthy habit" and "worry about the possibility of adverse events for inconsistency with a healthy lifestyle," are centered on the risk severity construct. The study underscores the outcomes linked to inconsistent

adherence to healthy lifestyle guidelines significantly shape participants' behaviors. The risk severity construct operates as a perceptible threat, wherein participants' beliefs about the potential threat of comorbidity or adverse events serve as catalysts for behavioral modifications, manifesting as fear and worry. These emotional responses, in turn, drive participants to actively strive towards adhering to the recommended healthy lifestyle habits. In essence, the construct of risk severity becomes a motivational force, illuminating the intricate interplay between perceived threats and the adoption of health-promoting behaviors in the context of managing CHD.

Perceptions of Action Benefits

The individual convictions regarding the benefits of taking action play a pivotal role in predicting the maintenance of a healthy lifestyle among study participants. The correlation between perceived benefits and the resultant behavioral transformation underscores the potent influence of participants' beliefs on both external challenges and internal aspirations. It is well-established that beliefs about health risks can serve as precursors to health behaviors. Within this context, the construct of perceived benefits emerges as the most significant predictor of healthy lifestyle behavior. The study's findings, aligned with this construct, encompass themes such as "hope to sustain a healthy lifestyle for its benefits," "relief of consistency in maintaining a healthy routine through support," and "balance to keep up adherence to a healthy routine and challenges of life." These themes are rooted in the participants' beliefs regarding the perceived benefits of effectively self-managing CHD through consistently maintaining a healthy lifestyle routine. Participants emphasized that their belief in the efficacy of adequate self-

management of CHD, driven by the desire to be healthy and present for their families, prompted a behavior change to minimize risks. This behavioral shift expressed a sense of balance, relief, and hope, elucidating the anticipated positive effects of sustaining a healthy lifestyle for its inherent benefits. Consequently, study participants demonstrated a robust belief in both susceptibility and severity, endorsing the recommended healthy lifestyle guidelines as potentially advantageous in mitigating the consequences of inconsistent adherence to health practices.

Perceptions of Barriers to Action

The significance of the constructs related to perceived barriers to action cannot be overstated, as they elucidate the impact of beliefs on participants' efforts to alter health behaviors, even when faced with extreme exhaustion and physical fatigue. Themes consistent with this construct include "sadness and frustration stemming from the inability to sustain the recommended lifestyle" and "fatigue resulting from other duties hindering adherence to a healthy daily routine." Both findings underscore the influence of perceived barriers in predicting participants' endeavors to uphold the recommended healthy practices for managing CHD despite the challenge of balancing professional responsibilities and other commitments with health guidelines. The constructs associated with perceived barriers to action shed light on the role of attitudes and beliefs in this context. The potential challenges surrounding the consistent maintenance of healthy lifestyle practices, encompassed within the construct of perceived barriers, may pose obstacles to adopting recommended behaviors. Study participants engage in a thoughtful evaluation, weighing the expected benefits against perceived barriers when considering

sustained adherence to healthy lifestyle recommendations. Therefore, the participants' levels of susceptibility and severity motivate them to take action and mitigate perceived barriers or challenges linked to consistently adhering to healthy lifestyle practices. This proactive approach involves leveraging reassurance, increasing awareness, seeking support systems, finding motivation, and acquiring the necessary resources to navigate and overcome the challenges associated with their chosen path of adhering to healthy lifestyle practices consistently.

Perceptions of Self-Efficacy

Self-efficacy, as defined by Bandura's social cognitive theory, refers to an individual's belief in their capability to execute behaviors required to produce desired outcomes successfully and the conviction that a given behavior will lead to specific outcomes (Bandura, 1977). The thematic elements consistent with the self-efficacy construct, as identified in the study, encompass expressions of "gratitude for receiving support from family, faith, health practitioners, and the community" and "encouragement from support and resources to sustain a healthy lifestyle." The construct of self-efficacy centers on confidence in the participant's ability to enact recommended actions, supported by external factors such as a robust support system and motivation. This pertains specifically to the sustained adherence to healthy lifestyle practices necessary for the self-management of CHD. The self-efficacy in maintaining a consistently healthy lifestyle is contingent upon the participant's desired behavior of expressing gratitude and drawing encouragement from their support network, whether family, faith-based, involving health practitioners, or community-oriented. This dynamic interaction reduces anxiety levels

and propels the participant to strive actively toward maintaining a healthy lifestyle for the effective self-management of CHD.

Perceptions of Cue to Action

The construct of cue-to-action within the context of health behavior theories concentrates on external stimuli or triggers that initiate mechanisms leading to health-related actions. These cues serve as catalysts, propelling individuals to adopt health-oriented behaviors. This study's strategies deployed to activate readiness are intrinsically tied to the interplay between various constructs. This suggests that study participants are more inclined to consistently uphold a healthy lifestyle (cue to action) when influenced by other constructs. Consequently, study participants activate cues to action when they perceive the risk susceptibility and severity associated with developing comorbidity. This activation is further influenced by their recognition of barriers and benefits related to the challenges of maintaining a healthy lifestyle, coupled with a profound understanding of the significance of effective self-management of CHD. This comprehensive framework contributes to higher levels of self-efficacy, fostering a consistent adherence to the prescribed healthy lifestyle guidelines. The interwoven nature of these constructs accentuates the nuanced dynamics shaping individuals' responses to cues and their subsequent commitment to health-promoting actions.

The HBM constructs encompassing perceived susceptibility, severity, benefits, barriers, self-efficacy, and cues to action have played a significant explanatory role in elucidating the health behavior changes undertaken by study participants to ameliorate their condition. The deleterious nature of CHD heightens participants' perceptions of risk,

encompassing both susceptibility and severity dimensions. Concurrently, participants perceive the benefits of sustained adherence to healthy lifestyle practices and the obstacles posed by persistent challenges in maintaining such a regimen. The cue-to-action mechanism assumes paramount importance as participants actively adhere to healthy lifestyle practices, coupled with an increased perception of self-efficacy—the confidence and ability to act according to a healthy lifestyle consistently. Consequently, the HBM constructs collectively manifest a robust influence and possess predictive efficacy concerning the health-related behaviors exhibited by the study participants.

Contextual Application of the Health Belief Model and the Hermeneutic Phenomenological Approach

This qualitative study meticulously embraced a methodological framework, intertwining the hermeneutic phenomenological approach and the HBM to delve into the multifaceted tapestry of participants' lived experiences in the self-management of CHD within the confines of Katy, Texas. The conscientious integration of the hermeneutic phenomenological approach and the HBM afforded a profound examination. It yielded sagacious insights into the intricate nuances of participants' beliefs concerning barriers and benefits that significantly mold their health-related behaviors. With its underpinning philosophy of interpretive understanding, the hermeneutic phenomenological approach unraveled the essence of participants' experiences. It provides a detailed textual description that transcends the superficial and delves into the profound layers of meaning through progressively nuanced reflection. This dynamic synthesis of methodological approaches synergistically enhanced the study's capacity to encapsulate the depth and

breadth of participants' experiences, contributing to a more robust comprehension of the intricate interplay between beliefs, behaviors, and the self-management of CHD.

Contextual Findings of the Health Belief Model

This qualitative investigation skillfully employed the six foundational constructs of the HBM, namely perceived seriousness, susceptibility, benefits, barriers, cues to action, and self-efficacy. This methodological choice finds validation in the work of Luquis and Kensinger (2019), affirming the effectiveness of the HBM constructs in delineating individuals' progression toward transformative health behaviors. By delving into the core tenets of the HBM, this study unearthed a robust explanatory and predictive framework for comprehending the health-promoting behaviors exhibited by participants managing CHD through adopting healthy lifestyle practices.

As illuminated in Chapter 2, the insights gleaned from Herrmann et al. (2018) and Jones et al. (2015) underscore the pivotal role played by the HBM constructs in forecasting health behaviors. These studies accentuated the model's focus on intra-personal factors, particularly risk-related beliefs, which intricately shape individuals' decision-making in matters about their health. The application of the HBM not only fosters a profound understanding of the nuanced perceptions surrounding benefits, barriers, susceptibility, and self-efficacy but also unravels the intricate interplay of these factors, precipitating a response that often manifests into the likelihood of the desired health behavior occurring (Herrmann et al., 2018; Jones et al., 2015).

The overarching conclusions drawn from the present study underscore and substantiated antecedent research, affirming that the comprehensive application of the six

constructs of the HBM facilitated a profound and nuanced understanding of the myriad factors influencing participants' resolute commitment to maintaining a healthy lifestyle. This investigation sheds light on the intricate steps undertaken by participants to modify their health behaviors, revealing a tapestry woven with informed decision-making, resilience in the face of challenges, and a strategic adherence to healthy lifestyle recommendations.

Participants elucidated how the amalgamation of insights gleaned from health care practitioners, personal research endeavors, and familial collaboration was pivotal in shaping their determination to consistently adhere to healthy lifestyle practices. Despite grappling with impediments that could have derailed their commitment, participants consciously chose to adhere to these recommendations. This decision-making process underpinned a profound awareness of the substantial benefits of self-managing their condition and a clear understanding of the stakes involved.

This study underscores the imperative of delving into the intricacies of participants' decision-making behaviors as it unravels the broader implications for patient awareness and education. Understanding these influences becomes a linchpin for fostering informed decision-making among patients and the broader populace. Furthermore, it accentuates the significance of a collaborative approach between patients and health care providers, advocating for shared recommendations for self-managing CHD.

Contextual Findings of the Hermeneutic Phenomenological Approach

The Hermeneutic phenomenological approach, a central component of the qualitative methodology employed in this study, played a pivotal role in the nuanced exploration and interpretation of the lived experiences and phenomena of the participants. This method, as elucidated by Emiliussen et al. (2021), was chosen for its capacity to delve into complex, ambiguous, and emotionally charged issues, ensuring an exploration of participants' lived experiences without imposing pre-existing theoretical preconceptions on their narratives. This approach provides a distinctive account of participants' experiences instead of adhering to predetermined theoretical frameworks (Smith & Osborn, 2015).

The hermeneutic phenomenological approach showcased its efficacy by comprehensively portraying participants' lived experiences in self-managing CHD. It offered insights into their adherence to the healthy lifestyle guidelines prescribed by health care professionals and gleaned from personal research. The findings align with Al-Raisi et al. (2020) and Alsaigh and Coyne (2021), discussed in Chapter 2, emphasizing an account of lived experiences devoid of theoretical preconceptions. The approach also highlighted participants' encounters with challenges and the support resources and motivation derived from their respective support systems while pursuing healthy lifestyle practices for CHD self-management.

Contrastingly, the studies by Moghaddam-Tabrizi and Sodeify (2021) and Emilliussen et al. (2021), explored in Chapter 2, presented fundamental insights into participants' lived experiences from different dimensions. These studies aimed to

understand and interpret individual experiences, providing a complementary perspective to the in-depth interpretation facilitated by the hermeneutic phenomenological approach. The synthesis of findings from these fundamental studies reinforces that this approach is instrumental in revealing a detailed account of participants' lived experiences, encompassing challenges, support, and resources received. The core findings of this study corroborate prior research, emphasizing that the hermeneutic phenomenological approach is instrumental in providing a profound interpretation and understanding of participants' lived encounters in sustaining a healthy lifestyle and their consistency in adhering to the recommendations for CHD self-management.

Limitations

This qualitative inquiry recognizes and preempts certain limitations, with the primary constraint being the utilization of a telephone protocol interview for data collection within the context of a qualitative phenomenological study. Acknowledging the potential ramifications of adopting this approach is significant as it may hinder the depth of understanding and rapport-building. The inherent absence of visual cues poses a challenge to the researcher, impeding the capture of non-verbal expressions, nuanced details, and subtle facets integral to comprehending participants' experiences holistically. Furthermore, the telephonic format may encumber the establishment of a personalized connection, thereby complicating the task of fostering a trusting and open environment conducive to participants wholeheartedly sharing their experiences (Smith, 1996).

A second acknowledged limitation pertains to using a convenience sample, a choice that may not feasibly encapsulate the diversity within the entire AAs population in

the United States. The study's findings shed light on the lived experiences of CHD self-management among middle-aged and older, low-income AAs, specifically those aged between 40 and 80 years residing in the city of Katy, Texas. The overarching generalizability of these findings may be circumscribed, and they may not faithfully mirror the lived experiences of AAs across the broader spectrum of the United States or on a global scale.

The third recognized limitation involves the dependence on self-reported data from study participants concerning their lived experiences in sustaining a healthy lifestyle and self-managing their CHD. While rich in firsthand perspectives, the narratives articulated by participants introduce a level of susceptibility to exaggeration or even fabrication, potentially leading to response bias. This bias could manifest as an exaggeration of responses, recall bias, or social-desirability bias, where participants may either consciously or unconsciously provide responses that align with societal expectations or present themselves in a more favorable light (Rosenman et al., 2011).

The fourth anticipated limitation centers on the exclusive reliance on primary data, which necessitates the recruitment of study participants for firsthand information collection. While valuable for capturing authentic experiences, this method introduces the prospect of selection or sampling bias. This bias may arise if specific population segments are systematically more likely to be included in the sample than others, potentially skewing the overall representation of lived experiences in CHD self-management (Setia, 2016).

To address and mitigate the inherent limitations of the study, I diligently engaged in a comprehensive review process, meticulously examining the audio recordings of the interviews and the real-time verbatim transcripts. This iterative review aimed to enhance transcriptions' accuracy and discern and capture the nuanced feelings and emotions embedded in the participants' voices. I handled this approach thoroughly as a conscientious effort to minimize potential bias and ensure a more nuanced and authentic representation of the participants' experiences. In maintaining the integrity and robustness of the study, I deliberately employed a meticulously objective approach while formulating and presenting the interview questions. Using indirect questioning techniques further reduced potential response bias, ensuring that participants' responses were more genuine and reflected their true perspectives. Taking on the responsibility for sampling strategies, I embraced the application of purposive sampling to mitigate potential selection bias, ensuring that the chosen participants were explicitly relevant to the research objectives. In the intricate process of handling the extensive data set, I implemented a multifaceted analytical strategy. The process involved the incorporation of face sheets, which documented the interviewer's perceptions of the respondent and provided valuable contextual information that enriched the depth of the interviews. Additionally, I utilized coding techniques, generating systematic codes for the organized categorization of interview data. This strategic coding approach was instrumental in addressing the inherent challenge posed by the sheer volume of data, ensuring a coherent and manageable framework for insightful analysis. (Hunt et al., 2011; Rosenman et al., 2011).

In conclusion, emotional experience is inherently subjective, representing a convergence of objective physiological and psychological events. The term "feeling" serves as the conduit through which individuals express the personal facets of these experiences. In light of this, my approach involved meticulously identifying and assessing the participants' emotions (Schwab & Margaritis, 2020). My strategy facilitated the collection of well-defined and nuanced data and adhered to standardized procedures for subsequent data analysis. The overarching goal was to preserve the integrity and validity of the study by capturing the intricate interplay between objective physiological responses and the subjective richness of emotional experiences (Schwab & Margaritis, 2020).

Recommendations

The present study delves into the intricate lived experiences of individuals grappling with CHD as they endeavor to consistently manage their condition through self-management practices, particularly by adhering to recommended healthy lifestyle measures. Nevertheless, a noteworthy recommendation from this study pertains to addressing the challenge of generalizability. It becomes evident that further research is imperative to broaden the scope of the study, encompassing a more diverse array of communities and amplifying the sample size. This expansion serves the dual purpose of incorporating additional perspectives from various strata within communities and facilitating a more comprehensive understanding of the subject matter. It also opens avenues for developing extensive community-based educational programs, allowing for

more robust planning and implementation strategies to enhance awareness and support for individuals managing CHD across diverse settings.

Another valuable recommendation for future studies is adopting a mixed methods approach for data collection. This approach holds the promise of employing diverse instruments for data collection. Throughout the data collection process, qualitative data can furnish detailed descriptive insights, while quantitative data can offer numerical information, synergistically providing a more comprehensive understanding of the phenomenon under investigation. Moreover, the mixed-method approach can leverage existing data sets and extend the study to encompass a larger cohort of stakeholders (Creswell & Creswell, 2018; Glanz et al., 2015). This multifaceted methodology not only enhances the depth of analysis but also broadens the scope of inquiry, allowing for a more nuanced exploration of the subject matter and facilitating the inclusion of a more extensive array of perspectives.

Implications

Health literacy is a multidimensional construct that transcends basic literacy skills, encompassing reading, writing, speaking, and numeracy proficiency. Beyond these fundamental aspects, it extends into science literacy, civic literacy, and cultural literacy, reflecting a comprehensive understanding of health-related information (Shaw et al., 2012). In this context, health care practitioners emerge as pivotal conduits of information and awareness. They are crucial in enlightening patients about healthy lifestyles, comprehensive knowledge of their health conditions, preventive measures, and the associated benefits and risks integral to adeptly managing their conditions.

The study's findings underscored the participants' profound familiarity with the intricate details of their health conditions, equipping them with the knowledge required for effective self-management and maintaining consistent healthy routines. Consequently, health literacy emerges as a linchpin in pursuing a healthy lifestyle, a valuable tool for self-managing CHD. This realization calls for concerted efforts from health practitioners, educators, and public health organizations. Collaborative endeavors should include developing decision-aid tools, resources for creating awareness, educational programs, and other strategic interventions. By bolstering patients' understanding of chronic diseases, particularly CHD, these initiatives aim to enhance long-term adherence to sustaining a healthy lifestyle fostering a healthier and more informed society.

Moreover, the foundational pillars of fostering consistency in adhering to a healthy lifestyle for the self-management of CHD are support groups and community assistance, a sentiment strongly endorsed by the study participants. The participants vividly express the significance of community support groups in maintaining remarkable consistency in managing CHD, highlighting the pivotal role such support plays in their self-management journey. Consequently, the study holds considerable relevance for policy makers and public health organizations, offering insights into the potential benefits of implementing health policies that specifically facilitate community support groups tailored for individuals grappling with chronic diseases, particularly CHD.

These community-driven initiatives should actively engage in outreach efforts to persuade and encourage patients to participate. Such proactive involvement is crucial in fostering long-term adherence to a healthy lifestyle. Furthermore, these support

mechanisms extend beyond the tangible aspects of health management, offering emotional support, strength, and a guiding influence indispensable for individuals navigating the complexities of self-managing CHD. As the study underscores the instrumental role of community support, it is a compelling foundation for advocating and developing initiatives that empower individuals to sustain healthier lifestyles in the face of chronic health challenges.

Conclusion

This phenomenological qualitative exploration meticulously scrutinizes the intricate tapestry of lived experiences in the self-management of CHD among middle-aged and older, low-income AAs within the confines of Katy, Texas. The judicious adoption of the HBM approach and the hermeneutic phenomenological approach serves as an intellectual compass, guiding the study through the labyrinth of data collection, exploration, and interpretation, unlocking the profound narratives encased within the participants' consistent self-management of CHD while maintaining a healthy lifestyle. Rather than limiting its focus to superficial comparisons between AAs and other racial groups, this study delves deep into the contextual richness of lived experiences.

The elucidation of multiple layers of influence and identifying categories that birthed themes, encapsulating the participants' sentiments provided a comprehensive response to the overarching RQ. Beyond the confines of racial comparisons, this study traverses the realm of lived experiences, elucidating universal resonances pertinent to healthy lifestyle recommendations, support systems, and strategies for consistent self-management of CHD. The predictive capacity of the HBM constructs concerning health-

related behaviors is revealed in this study, elucidating the paramount predictors among these diverse constructs. Singular attention to the preeminent construct underscores that the amalgamation of risk susceptibility, risk severity, and action benefits emerges as the foremost predictive factor for the sustained adherence to healthy lifestyle practices in this investigation. The deliberate application of HBM constructs stands out as a notable strength of this study, holding promise for informing the design of interventions aimed at promoting adherence to healthy lifestyles, facilitating self-management of chronic diseases, and efficaciously preventing and mitigating the development of comorbidity. The findings transcend academic discourse, extending into practical applicability, advocating for educational awareness and sustainable solutions that catalyze positive social change. The study, in turn, contributes to the development of robust public health policies and regulations fostering healthy lifestyle practices and conducive physical environments for consistent self-management of CHD among AAs in economically disadvantaged communities and broader populations.

Understanding the individual experience of middle-aged and older AAs in managing their CHD is critical in promoting educational awareness and adequate support for this population. Presenting sustainable solutions that promote healthy lifestyles and behaviors will improve long-term adherence and minimize comorbidity among middle-aged and older AAs. The findings of the study may be beneficial in planning health interventions, developing decision-aid tools and resources, and motivational support groups tailored for individuals dealing with CHD, that aggressively persuade patients to participate. As they foster maintaining a healthy lifestyle while providing emotional

support, strength, and guidance to improve long-term adherence and minimize most chronic disease or comorbidity burdens among AAs. Finally, the results could help create public health policies and regulations to strengthen and encourage healthy lifestyle behaviors among AAs.

References

Abaza, H., & Marschollek, M. (2017). SMS education for the promotion of diabetes self-management in low- & middle-income countries: A pilot randomized controlled trial in Egypt. *BMC Public Health*, *17*(1), Article 962. https://doi.org/10.1186/s12889-017-4973-5

Abdo, N. M., Mortada, E. M., & El Seifi, O. S. (2019). Effect of knowledge about cardiovascular diseases on healthy lifestyle behavior among freshmen of Zagazig University: An intervention study. *Open Public Health Journal*, *12*, 300–308. https://doi.org/10.2147/1874944501912010300

Abraham, C., & Sheeran, P. (2015). The health belief model. In M. Conner & P. Normaned (Eds)., *Predicting and changing health behavior: Research and practice with social cognition models* (pp. 30–69). Open University Press.

Allegrante, J. P., Wells, M. T., & Peterson, J. C. (2019). Interventions to support behavioral self-management of chronic diseases. *Annual Review of Public Health*, *40*, 127–146. https://doi.org/10.1146/annurev-publhealth-040218-044008

Al-Raisi, U., Al Salmi, I., Magarey, J., Rasmussen, P. & Hannawi, S., (2020). Hermeneutic phenomenology research approach: A review of the continuing professional development in the clinical speciality of cardiology. *Cardiology and Vascular Research*, *4*(4), 1–9. https://doi.org/10.33425/2639-8486.1082

Alsaigh, R., & Coyne, I. (2021). Doing a hermeneutic phenomenology research underpinned by Gadamer's philosophy: A framework to facilitate data analysis. *International Journal of Qualitative Methods*, *20*.

https://doi.org/10.1177/16094069211047820

Alshammari, S. A., AlDhayan, A. Z., Saad Al-Essa, O. M., Alosaimi, M. M., Al-Badr, B. M., Ali, A. B., & Ajlan, Q. A. (2020). Challenges to lifestyle modification of chronic disease patients attending primary health care centers in Riyadh. *Journal of Family Medicine and Primary Care*, *9*(12), 6186–6193. https://doi.org/10.4103/jfmpc.jfmpc_1037_20

Andualem, A., Gelaye, H., & Damtie, Y. (2020). Adherence to lifestyle modifications and associated factors among adult hypertensive patients attending chronic follow-up units of Dessie Referral Hospital, Northeast Ethiopia, 2020. *Integrated Blood Pressure Control, 13*, 145–156. https://doi.org/10.2147/IBPC.S275575

Arevalo, M. & Brown, L. D., (2019). Using a reasoned action approach to identify determinants of organized exercise among Hispanics: a mixed-methods study. *BMC Public Health*, *19*, Article 1181. https://doi.org/10.1186/s12889-019-7527-1

Bąk-Sosnowska, M., Gruszczyńska, M., Wyszomirska, J., & Daniel-Sielańczyk, A., (2022). The Influence of Selected Psychological Factors on Medication Adherence in Patients with Chronic Diseases. *Healthcare (Basel, Switzerland), 10(3), 426.* https://doi:10.3390/healthcare10030426

Beer, N., Ali, A.S., Eskilsson, H., Jansson, A., Abdul-Kadir, F. M., Rotllant-Estelrich, G., Abass, A. K., Wabwire-Mangen, F., Bjorkman, A. & Kallander, K., (2012). A qualitative study on caretakers' perceived need of bed-nets after reduced malaria transmission in Zanzibar, Tanzania. *BMC Public Health 12, 606.* https://doi:10.1186/1471-2458-12-606

Benkel, I., Arnby, M., & Molander, U. (2020). Living with a chronic disease: A quantitative study of the views of patients with a chronic disease on the change in their life situation. *SAGE Open Medicine.* https://doi:10.1177/2050312120910350

Bierer, B. E., White, S. A., Gelinas, L., & Strauss, D. H., (2021). Fair payment and just benefits to enhance diversity in clinical research. *Journal of Clinical and Translational Science, 5(1), e159*. https://doi:10.1017/cts.2021.816

Braun, V., & Clarke, V. (2021). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. Qualitative Research in Sport, Exercise and Health, 13(2), 201–216. https://doi.org/10.1080/2159676X.2019.1704846 Braveman, P. A., Cubbin, C., Egerter, S., Williams, D. R., & Pamuk, E., (2010). Socioeconomic disparities in health in the United States: what the patterns tell us. *American Journal of Public Health, 100(1), 186 – 196.* https://doi:10.2105/AJPH.2009.166082

Braveman, P. A., Cubbin, C., Egerter, S. A., Woolf, S. H., & Marks, J. S., (2011). When do we know enough to recommend action on the social determinants of health? *American Journal of Preventive Medicine, 40(1), 58 – 66.* https://doi:10.1016/j.amepre.2010.09.026

Braveman, P. A., Egerter, S. A., & Mockenhaupt, R. E. (2011). Broadening the focus: the need to address the social determinants of health. *American Journal of Preventive Medicine, 40(1), 4 – 18.* https://doi:10.1016/j.amepre.2010.10.002

Braveman, P. A., Egerter, S. & Williams, D. R., (2011). The social determinants of health: coming of age. *Annual Review of Public Health, 32(1), 381 – 398.*

https://doi:10.1146/annurev-publhealth-031210-101218

Braveman, P., & Gottlieb, L., (2014). The social determinants of health: it's time to consider the causes of the causes. *Public Health Reports (Washington, D.C.: 1974), 129(2), 19 – 31*. https://doi:10.1177/00333549141291S206

Briggs, F. H., Adler, N. E., Berkowitz, S. A., Chin, M. H., Gary-Web, T. L., Navas-Acien, Thornton, P. L., & Haire-Joshu, D., (2021). Social determinants of health and Diabetes: A Scientific review. *Diabetes Care, 44(1), 258 - 279.* https://doi:10.2337/dci20-0053

Brown, A. G. M., Hudson, L. B., Chui, K., Metayer, N., Lebron-Torres, N., Seguin, R. A. & Folta, S. C., (2017). Improving heart health among Black/African American women using civic engagement: a pilot study. *BMC Public Health 17, 112*. https://doi:10.1186/s12889-016-3964-2

Brown, J., Gerhardt, T. & Kwon, E. (2021). Risk factors for coronary artery disease. *Startpearls.com*. Retrieved from https://www.statpearls.com/ArticleLibrary/viewarticle/28614

Cajita, M. I., Cajita, T. R. & Han, H. R., (2016). Health literacy and heart failure: a systematic review. *The Journal of Cardiovascular Nursing, 31(2), 121 - 130.* https://doi:10.1097/JCN.0000000000000229

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K., (2020). Purposive sampling: complex or simple? research case examples. *Journal of Research in Nursing, 25(8), 652 – 661*. https://doi:10.1177/1744987120927206

Cao, Z., Xu, C., Yang, H., Li, S., & Wang, Y., (2021). The role of healthy lifestyle in cancer incidence and temporal transitions to cardiometabolic disease. JACC. *Cardio Oncology, 3(5), 663 – 674.* https://doi:10.1016/j.ijnss.2022.02.005

Carnethon, M. R., Pu, J., Howard, G., Albert, M. A., Anderson, C. A. M., Bertoni, A. G., Mujahid, M. S., Palaniappan, L., Taylor Jr., H. A., Willis, M. & Yancy, C. W., (2017). Cardiovascular health in African Americans: a scientific statement from the American Heart Association. *Circulation, 136(21), 393 – 423.* https://doi:10.1161/CIR.0000000000000534

Centers for Medicare & Medicaid Services. (2021). Medicare-Medicaid coordination. *CMS.gov:* Center for Medicare and Medicaid Services. Retrieved from https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-MedicaidCoordination.

Chahardah-Cherik, S., Gheibizadeh, M., Jahani, S., & Cheraghian, B., (2018). The relationship between health literacy and health promoting behaviors in patients with type 2 diabetes. *International Journal of Community-Based Nursing and Midwifery, 6(1), 65 –75.*

Chen, H. H., & Hsieh, P. L. (2021). Applying the Pender's Health Promotion Model to identify the factors related to older adults' participation in community-based health promotion activities. *International Journal of Environmental Research and Public Health, 18(19), 9985.* https://doi:10.3390/ijerph18199985

Cherukuri, L., Birudaraju, D. & Budoff, M. J. (2021). Coronary artery calcium score: pivotal role as a predictor for detecting coronary artery disease in symptomatic

patients. *Coronary Artery Disease, 32(6), 578 – 585.* https://doi:10.1097/MCA.0000000000000999

Chiuve, S. E., Fung, T. T., Rexrode, K. M., Spiegelman, D., Manson, J. E., Stampfer, M. J., & Albert, C. M., (2011). Adherence to a low-risk, healthy lifestyle and risk of sudden cardiac death among women. *JAMA, 306(1), 62 – 69.* https://doi:10.1001/jama.2011.907

Chiuve, S. E., Fung, T. T., Rimm, E. B., Hu, F. B., McCullough, M. L., Wang, M., Stampfer, M. J., & Willett, W. C., (2012). Alternative dietary indices both strongly predict risk of chronic disease. *The Journal of Nutrition, 142(6), 1009 – 1018*. https://doi:10.3945/jn.111.157222

Chiuve, S. E., McCullough, M. L., Sacks, F. M., & Rimm, E. B., (2006). Healthy lifestyle factors in the primary prevention of coronary heart disease among men. *Circulation, 114(2), 160 – 167.* https://doi:10.1161/CIRCULATIONAHA.106.621417

Chiuve, S. E., Rexrode, K. M., Spiegelman, D., Logroscino, G., Manson, J. E., & Rimm, E. B., (2008). Primary prevention of stroke by healthy lifestyle. *Circulation, 118(9), 947 – 954.* https://doi:10.1161/CIRCULATIONAHA.108.781062

Chomistek, A. K., Chiuve, S. E., Eliassen, A. H., Mukamal, K. J., Willett, W. C., & Rimm, E. B., (2015). Healthy lifestyle in the primordial prevention of cardiovascular disease among young women. *Journal of the American College of Cardiology, 65(1), 43 – 51*. https://doi:10.1016/j.jacc.2014.10.024

Chomistek, A. K., Cook, N. R., Flint, A. J., & Rimm, E. B., (2012). Vigorous-intensity leisure-time physical activity and risk of major chronic disease in men. *Medicine and Science in Sports and Exercise, 44(10), 1898 – 1905.* https://doi:10.1249/MSS.0b013e31825a68f3

Chudasama, Y. V., Khunti, K., Gillies, C. L., Dhalwani, N. N., Davies, M. J., Yates, T., & Zaccardi, F. (2020). Healthy lifestyle and life expectancy in people with multimorbidity in the UK Biobank: A longitudinal cohort study. *PLoS Medicine, 17(9), e1003332.* https://doi:10.1371/journal.pmed.1003332.

Chumpunuch, P., & Jaraeprapal, U. (2022). The social determinants of health influencing obesity for the aged in the Pakpoon community context: A qualitative study. *International Journal of Nursing Sciences, 9(2), 211 - 221.* https://doi:10.1371/journal.pmed.1003332.

Conner, M. & Norman, P., (2017) Health behavior: Current issues and challenges. *Psychology & Health, 32(8), 895 – 906.* https://doi:10.1080/08870446.2017.1336240

Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods (5th ed.). Sage.

Cuevas, A. G., (2013). Exploring four barriers experienced by African Americans in healthcare: perceived discrimination, medical mistrust, race discordance and poor communication. *Portland State University, Dissertations and Theses, Paper 615.* https://doi:10.15760/etd.615

Dale, L. P., Whittaker, R., Jiang, Y., Stewart, R., Rolleston, A., & Maddison, R., (2014).

Improving coronary heart disease self-management using mobile technologies (Text4Heart): a randomized controlled trial protocol. *Trials, 15, 71*. https://doi:10.1186/1745-6215-15-71

Dawkes, S., Smith, G. D., Elliott, L., Raeside, R., & Donaldson, J. H., (2016). Self-management of coronary heart disease in older patients after elective percutaneous transluminal coronary angioplasty. *Journal of Geriatric Cardiology: JGC, 13(5), 393 – 400*. https://doi:10.11909/j.issn.1671-5411.2016.05.010

Diaz-Gutierrez, J., Ruiz-Estigarribia, L., Bes-Rastrollo, M., Ruiz-Canela, M., Martin-Moreno, J. M. & Martinez-Gonzalez, M. A., (2019) The role of lifestyle behavior on the risk of hypertension in the SUN cohort: the hypertension preventive score. *Preventive Medicine, 123, 171 – 178*. https://doi:10.1371/journal.pone.0199770

Diekelmann, N. L. (1993). Behavioral pedagogy: a Heideggerian hermeneutical analysis of the lived experiences of students and teachers in baccalaureate nursing education. *Journal of Nursing Education, 32(6), 245 - 250*. https://doi:10.3928/0148-4834-19930601-04

De Luca, L., Temporelli, P. L., Lucci, D., Colivicchi, F., Calabrò, P., Riccio, C., Amico, A., Mascia, F., Proia, E., Di Lenarda, A. & Gulizia, M. M., (2018). Characteristics, treatment and quality of life of stable coronary artery disease patients with or without angina: Insights from the START study. *PLoS ONE 13(7): e0199770*. https://doi:10.1016/j.ypmed.2019.03.026

Egan, B. M., Bland, V. J., Brown, A. L., Ferdinand, K. C., Hernandez, G. T., Jamerson, K. A., Johnson, W. R., Kountz, D. S., Li, J., Osei, K., Reed, J. W., & Saunders,

E., (2015). Hypertension in African Americans aged 60 to 79 years: statement from the international society of hypertension in blacks. *Journal of Clinical Hypertension (Greenwich, Conn.), 17(4), 252 – 259.* https://doi:10.1111/jch.12511

Elgazzar, R., Nolan, T. S., Joseph, J. J., Aboagye-Mensah, E. B., Azap, R. A., & Gray, D. M., 2nd (2020). Community-engaged and community-based participatory research to promote American Heart Association Life's Simple 7 among African American adults: A systematic review. *PloS one, 15(9), e0238374.* https://doi:10.1371/journal.pone.0238374

Ellis, K. R., Hecht, H. K., Young, T. L., Oh, S., Thomas, S., Hoggard, L. S., Ali, Z., Olawale, R., Carthron, D., Corbie-Smith, G., & Eng, E. (2020). Chronic disease among African American families: A systematic scoping review. *Preventing Chronic Disease, 17, E167*. https://doi:10.5888/pcd17.190431

Emiliussen, J., Engelsen, S., Christiansen, R., & Klausen, S. H. (2021). We are all in it!: Phenomenological qualitative research and embeddedness. *International Journal of Qualitative Methods*. https://doi:10.1177/1609406921995304

Freisling, H., Viallon, V., Lennon, H., Bagnardi, V., Ricci, C., Butterworth, A. S., Sweeting, M., Muller, D., Romieu, I., Bazelle, P., Kvaskoff, M., Arveux, P., Severi, G., Bamia, C., Kühn, T., Kaaks, R., Bergmann, M., Boeing, H., Tjønneland, A., Olsen, A., Overvad, K., Dahm, C. C., Menendez, V., Agudo, A., Sanchez, M. J., Amiano, P., Santiuste, C., Gurrea, A. B., Tong, T. Y. N., Schmidt, J. A., Tzoulaki, I., Tsilidis, K. K., Ward, H., Palli, D., Agnoli, C., Tmino, R.,

Ricceri, F., Panico, S., Picavet, H. S. J., Bakker, M., Monninkhof, E., Nilsson, P., Manjer, J., Rolandsson, O., Thysell, E., Weiderpass, E., Jenab, M., Riboli, E., Vineis, P., Danesh, J., Wareham, N. J., Gunter, M. J. & Ferrari, P., (2020). Lifestyle factors and risk of multimorbidity of cancer and cardiometabolic diseases: a multinational cohort study. *BMC Medicine, 18(1), 5.* https://doi:10.1186/s12916-019-1474-7

Froze, S., Arif, M. T. & Saimon, R., (2019). Determinants of health literacy and healthy lifestyle against metabolic syndrome among major ethnic groups of Sarawak, Malaysia: a multi-group path analysis. *The Open Public Health Journal, 12(1), 172 – 183*. https://doi:10.2174/187494450191201072

Gadowski, A. M., Curtis, A. J., Heritier, S., Zoungas, S. & Owen, A. J., (2021). Barriers to healthy lifestyle behaviors and adherence to physical activity and dietary guidelines by older Australians: a descriptive analysis. *Human Nutrition and Metabolism, 25, 200127*. https://doi:10.1016/j.hnm.2021.200127

Gaziano, T. A., Bitton, A., Anand, S., Abrahams-Gessel, S., & Murphy, A., (2010). Growing epidemic of coronary heart disease in low- and middle-income countries. *Current Problems in Cardiology, 35(2), 72 – 115*. https://doi:10.1016/j.cpcardiol.2009.10.002

Ghaemian, A., Nabati, M., Saeedi, M., Kheradmand, M. & Moosazadeh, M., (2020). Prevalence of self-reported coronary heart disease and its associated risk factors in Tabari cohort population. *BMC Cardiovasc Disorders, 20, 238.* https://doi:10.1186/s12872-020-01526-w

Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2015). Health behavior: Theory, research, and practice (5th ed.). Jossey-Bass.

Gosadi, I. M., Daghriri, K. A., Majrashi, A. A., Ghafiry, H. S., Moafa, R. J., Ghazwani, M. A., Bahari, A. Y., Ajeebi, R. E., Zurayyir, A. J., Jarab, F. K., Bahri, A. A., Ryani, M. A. & Salim, A. M., (2020). Lifestyle choices and prevalence of chronic noncommunicable diseases among primary healthcare physicians in the Jazan Region, Saudi Arabia. *Journal of Family Medicine and Primary Care, 9, 5699 – 5704.* https://doi:10.4103/jfmpc.jfmpc_1472_20

Green, E.C., Murphy, E.M. & Gryboski, K. (2020). The Health Belief Model. In The Wiley Encyclopedia of Health Psychology (eds K. Sweeny, M.L. Robbins and L.M. Cohen). https://doi:10.1002/9781119057840.ch68

Hamad, R., Penko, J., Kazi, D. S., Coxson, P., Guzman, D., Wei, P. C., Mason, A., Wang, E. A., Goldman, L., Fiscella, K., & Bibbins-Domingo, K. (2020). Association of low socioeconomic status with premature coronary heart disease in US adults. *JAMA Cardiology, 5(8), 899 – 908.* https://doi:10.1001/jamacardio.2020.1458

Hammarberg, K., Kirkman, M. & De Lacey, S., (2016). Qualitative research methods: when to use them and how to judge them. *Human Reproduction, 31(3), 498 – 501.* https://doi:10.1093/humrep/dev334

Hardman, R., Begg, S. & Spelten, E., (2020). What impact do chronic disease self-management support interventions have on health inequity gaps related to socioeconomic status: a systematic review. *BMC Health Services Research, 20,*

150. https://doi:10.1186/s12913-020-5010-4

Hayes, T. O. & Gillian, S., (2020). Chronic disease in the United States: a worsening health and economic crisis. American Action Forum: Research. Retrieved from https://www.americanactionforum.org/research/chronic-disease-in-the-united-states-a-worsening-health-and-economic-crisis/

Herrmann, A., Hall, A. & Proietto, A., (2018). Using the Health Belief Model to explore why women decide for or against the removal of their ovaries to reduce their risk of developing cancer. *BMC Women's Health 18, 184*. https://doi:10.1186/s12905-018-0673-2

Hunt, G., Moloney, M., & Fazio, A., (2011). Embarking on large-scale qualitative research: reaping the benefits of mixed methods in studying youth, clubs and drugs. *Nordisk Alkohol- & Narkotikatidskrift: NAT, 28(5-6), 433 – 452*. https://doi:10.2478/v10199-011-0040-1

Huynh-Hohnbaum, A. L., Marshall, L., Villa, V. M., & Lee, G. (2015). Self-Management of heart disease in older adults. *Home Health Care Services Quarterly, 34(3 - 4), 159 – 172*. https://doi:10.1080/01621424.2015.1092909

Janevic, M.R., Ramsay, J. E., Allgood, K. L., Domazet, A., Cardozo, S. & Connell, C. M., (2022). Heart disease self-management for African American older adults: outcomes of an adapted evidence-based intervention. *Innovation in Aging, 6(7), igac053*. https://doi:10.1093/geroni/igac053

Jeon, Y. J., Pyo, J., Park, Y. K.. & Ock, M., (2020). Health behaviors in major chronic diseases patients: trends and regional variations analysis, 2008 -2017, Korea.

BMC Public Health, 20,1813. https://doi:10.1186/s12889-020-09940-7

Jones, C. L., Jensen, J. D., Scherr, C. L., Brown, N. R., Christy, K., & Weaver, J. (2015). The Health Belief Model as an explanatory framework in communication research: exploring parallel, serial, and moderated mediation. *Health Communication, 30(6), 566 – 576*. https://doi:10.1080/10410236.2013.873363

Jukarainen, S., Kiiskinen, T., Kuitunen, S., Havulinna, A. S., Karjalainen, J., Cordioli, M., Ramo, J. T., Mars, N., Gen, F., Samocha, K. E., Ollila, H. M., Pirinen, M. & Ganna A., (2022). Genetic risk factors have a substantial impact on healthy life years. *Nature Medicine 28, 1893 – 1901.* https://doi:10.1038/s41591-022-01957-2

Kesmodel, U. S., (2018). Cross-sectional studies: what are they good for. *Acta Obstetriciaet Gynecologica Scandinavica, 97(4), 388 - 393.* https://doi:10.1111/aogs.13331

Khayyam-Nekouei, Z., Neshatdoost, H., Yousefy, A., Sadeghi, M., & Manshaee, G., (2013). Psychological factors and coronary heart disease. *ARYA Atherosclerosis, 9(1), 102 – 111.*

Khodaveisi, M., PhD, Omidi, A., Ms, Farokhi, S., Ms, & Soltanian, A. R., PhD (2017). The effect of Pender's health promotion model in improving the nutritional behavior of overweight and obese women. *International Journal of Community Based Nursing and Midwifery, 5(2), 165 – 174.*

Krantz, D. S., & McCeney, M. K. (2002). Effects of psychological and social factors on organic disease: a critical assessment of research on coronary heart disease. *Annual Review of Psychology, 53, 341 – 369*.

https://doi:10.1146/annurev.psych.53.100901.135208

Kreatsoulas, C., & Anand, S. S. (2010). The impact of social determinants on cardiovascular disease. *The Canadian Journal of Cardiology, 26(C), 8 – 13*. https://doi:10.1016/s0828-282x(10)71075-8

Lee, D. C., Liang, H. & Shi, L., (2021). The convergence of racial and income disparities in health insurance coverage in the United States. *International Journal for Equity in Health, 20, 96.* https://doi:10.1186/s12939-021-01436-z

Lee, M., Park, S., & Lee, K. S. (2020). Relationship between morbidity and health behavior in chronic diseases. *Journal of Clinical Medicine, 9(1), 121*. https://doi:10.3390/jcm9010121

Levine, G. N., Cohen, B. E., Commodore-Mensah, Y., Fleury, J., Huffman, J. C., Khalid, U., Labarthe, D. R., Lavretsky, H., Michos, E. D., Spatz, E. S., Kubzansky, L. D, & American Heart Association Council on Clinical Cardiology; Council on Arteriosclerosis, Thrombosis and Vascular Biology; Council on Cardiovascular and Stroke Nursing; and Council on lifestyles and Cardiometabolic health, (2020). Psychological health, well-being and the mind-heart-body connection: a scientific statement from the American Heart Association. *Circulation, 143, 10.* https://doi:10.1161/CIR.0000000000000947

Li, Y., Schoufour, J., Wang, D. D., Dhana, K., Pan, A., Liu, X., Song,M., Liu, G., Shin, H. J., Sun, Q., Al-Shaar, L., Wang, M., Rimm, E. B., Hertzmark, E., Stampfer, M. J., Willett, W. C., Franco, O. H. & Hu, F. B., (2020). Healthy lifestyles and life expectancy free of cancer, cardiovascular disease and type 2 diabetes: prospective

cohort study. *BMJ, 368, 16669.* https://doi:10.1136/bmj.16669

Link, B. G., & Phelan, J., (1995). Social Conditions as Fundamental Causes of Disease. *Journal of Health and Social Behavior, 80 – 94.* https://doi:10.2307/2626958

Liu, G., Li, Y., Hu, Y., Zong, G., Li, S., Rimm, E. B., Hu, F. B., Manson, J. E., Rexrode, K. M., Shin, H. J., & Sun, Q., (2018). Influence of lifestyle on incident cardiovascular disease and mortality in patients with Diabetes Mellitus. *Journal of the American College of Cardiology, 71(25), 2867 – 2876.* https://doi:10.1016/j.jacc.2018.04.027

Liu, L., Qian, X., Chen, Z., & He, T., (2020). Health literacy and its effect on chronic disease prevention: evidence from China's data. *BMC Public Health, 20(1), 690.* https://doi:10.1186/s12889-020-08804-4

Luquis, R. R. & Kensinger, W. S., (2019). Applying the Health Belief Model to assess prevention services among young adults. *International Journal of Health Promotion and Education, 57(1),* 37 – 47. https://doi:10.1080/14635240.2018.1549958

Luy, M., Di Giulio, P., Di Lego, V., Lazarevič, P., & Sauerberg, M. (2020). Life expectancy: frequently used, but hardly understood. Gerontology, 66(1), 95 – 104. https://doi:10.1159/000500955

Masters, K., (2015). Nursing theories: a framework for professional practice. Second edition. USA: Burlington, Massachusetts, Jones & Barret Learning

McCullough, M. L., Feskanich, D., Rimm, E. B., Giovannucci, E. L., Ascherio, A.,

Variyam, J. N., Spiegelman, D., Stampfer, M. J., & Willett, W. C., (2000). Adherence to the dietary guidelines for Americans and risk of major chronic disease in men. *The American Journal of Clinical Nutrition, 72(5), 1223 – 1231*. https://doi:10.1093/ajcn/72.5.1223

McCullough, M. L., Feskanich, D., Stampfer, M. J., Giovannucci, E. L., Rimm, E. B., Hu, F. B., Spiegelman, D., Hunter, D. J., Colditz, G. A. & Willett, W. C., (2002). Diet quality and major chronic disease risk in men and women: moving toward improved dietary guidance. *The American Journal of Clinical Nutrition, 76(6), 1261 – 1271*. https://doi:10.1093/ajcn/76.6.1261

McCullough, M. L., Feskanich, D., Stampfer, M. J., Rosner, B. A., Hu, F. B., Hunter, D. J., Variyam, J. N., Colditz, G. A., & Willett, W. C., (2000). Adherence to the dietary guidelines for Americans and risk of major chronic disease in women. *The American Journal of Clinical Nutrition, 72(5), 1214 – 1222*. https://doi:10.1093/ajcn/72.5.1214

McDaniel, M., Richardson, A., Gonzalez, D., Caraveo, C. A., Wagner, L. & Skopec, L., (2021). Black and African American adults perspectives on discrimination and unfair judgment in healthcare. *Urban Institute.* Retrieved from https://www.urban.org/sites/default/files/publication/104568/black-and-african-american-adults-perspectives-on-discrimination-and-unfair-judgment-in-health-care_0.pdf

McSweeney, B. (2021). Fooling ourselves and others: confirmation bias and the trustworthiness of qualitative research-part 1 (the threats). *Journal of*

Organization Change Management, 34(5), 1063 – 1075. https://doi:10.1108/JOCM-04-2021-0117

Mensah G. A., (2018). Cardiovascular diseases in African Americans: fostering community partnerships to stem the tide. *American Journal of Kidney Diseases: The Official Journal of The National Kidney Foundation, 72(1), 37 – 42*. https://doi:10.1053/j.ajkd.2018.06.026

Modi, S., Jacot, W., Yamashita, T., Sohn, J., Vidal, M., Tokunaga, E., Tsurutani, J., Ueno, N. T., Prat, A., Chae, Y. S., Lee, K. S., Niikura, N., Park, Y. H., Xu, B., Wang, X., Gil-Gil, M., Li, W., Pierga, J. Y., Im, S. A., Moore, H., Rugo, H. S., Yerushalmi, R., Zagouri, F., Gombos, A., Kim, S. B., Liu, Q., Luo, T., Saura, C., Schmid, P., Sun, T., Gambhire, D., Yung, L., Wang, Y., Singh, J., Vitazka, P., Meinhardt, G., Harbeck, N., Cameron, D. A., DESTINY-Breast04 Trial Investigators (2022). Trastuzumab Deruxtecan in previously treated HER2-low advanced breast cancer. *The New England Journal of Medicine, 387(1), 9 – 20*. https://doi:10.1056/NEJMoa2203690

Moghaddam-Tabrizi, F., & Sodeify, R. (2021). Lived experiences of nurses in the care of patients with COVID-19: A study of hermeneutic phenomenology. *Iranian Journal of Nursing and Midwifery Research, 26(6), 537 – 543.* https://doi:10.4103/ijnmr.IJNMR_319_20

Moran, K. E., Ommerborn, M. J., Blackshear, C. T., Sims, M., & Clark, C. R., (2019). Financial stress and risk of coronary heart disease in the Jackson Heart Study. *American Journal of Preventive Medicine, 56(2), 224 -*

231. https://doi:10.1016/j.amepre.2018.09.022

Murphy, S. L., Xu, J., Kochanek, K. D., Arias, E., Tejada-Vera, B. & Division of Vital Statistics, (2021). Death: final data for 2018. *National Vital Statistics Reports, 69(13).* Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-13-508.pdf

Ndejjo, R., Musinguzi, G., Nuwaha, F., Bastiaens, H. & Wanyenze, R. K., (2022) Understanding factors influencing uptake of healthy lifestyle practices among adults following a community cardiovascular disease prevention programme in Mukono and Buikwe districts in Uganda: A qualitative study. *PLoS ONE 17(2): e0263867*. https://doi:10.1371/journal.pone.0263867

Neubauer, B. E., Witkop, C. T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education, 8(2), 90 – 97*. https://doi:10.1007/s40037-019-0509-2

Nguyen, P., Schiaffino, M. K., & Lipton, B. J., (2021) Disparities in self-management outcomes by limited English proficiency among adults with heart disease. *Preventive Medicine Reports, 23, 101407.* https://doi:10.1016/j.pmedr.2021.101407

Noonan, A. S., Velasco-Mondragon, H. E. & Wagner, F.A. (2016). Improving the health of African Americans in the USA: an overdue opportunity for social justice. *Public Health Reviews, 37, 12*. https://doi:10.1186/s40985-016-0025-4

Nooruddin, M., Scherr, C., Friedman, P., Subrahmanyam, R., Banagan, J., Moreno, D., Sathyanarayanan, M., Nutescu, E., Jeyaram, T., Harris, M., Zhang, H., Rodriguez,

A., Shaazuddin, M., Perera, M., Tuck, M., & ACCOUNT Investigators, (2020). Why African Americans say "No": A study of pharmacogenomic research participation. *Ethnicity & disease, 30(1), 159 – 166.* https://doi:10.18865/ed.30.S1.159

Nyberg ST, Singh-Manoux A, Pentti J, Madsen, I. E. H., Sabia, S., Alfredsson, L., Bjorner, J. B., Borritz, M., Burr, H., Goldberg, M., Heikkilä, K., Jokela, M., Knutsson, A., Lallukka, T., Lindbohm, J. V., Nielsen, M. L., Nordin, M., Oksanen, T., Pejtersen, J. H., Rahkonen, O., Rugulies, R., Shipley, M. J., Sipilä, P. N., Stenholm, S., Suominen, S., Vahtera, J., Virtanen, M., Westerlund, H., Zins, M., Hamer, M., Batty, G. D. & Kivimäki, M., (2020). Association of healthy lifestyle with years lived without major chronic diseases. *JAMA Intern Med, 180(5), 760 – 768.* https://doi:10.1001/jamainternmed.2020.0618.

Oerther, S., (2021). Analysis method in hermeneutic phenomenological research: interpretive profiles. *Frontiers of Nursing, 7(4), 293 - 298.* https://doi:10.2478/fon-2020-0038

Office of Minority Health, U.S. Department of Health and Human Services. (2022). *Heart disease and African Americans*. https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=19

Olvera Lopez, E., Ballard, B. D., Jan, A., (2022). Cardiovascular disease. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK535419/

Ostchega, Y., Fryar, C. D., Nwankwo, T. & Nguyen, D. T., (2020). Hypertension

prevalence among adults aged 18 and over: United States, 2017 -2018. *NCH Data Brief, 364*. Retrieved from https://www.cdc.gov/nchs/data/databriefs/db364-h.pdf

Philips, K., Rogers, C. & Morgan, A., (2017). Perceptions of chronic disease among older African Americans: A qualitative analysis. *Journal of Health Disparities and Practice, 10(4), 52 –60.*

Quiñones, A. R., Botoseneanu, A., Markwardt, S., Nagel, C. L., Newsom, J. T., Dorr, D. A. & Allore, H. G., (2019). Racial/ethnic differences in multimorbidity development and chronic disease accumulation for middle-aged adults. *PLoS ONE 14(6): e0218462*. https://doi:10.1371/journal.pone.0218462

Raghupathi, W., & Raghupathi, V. (2018). An empirical study of chronic diseases in the United States: A visual analytics approach. *International Journal of Environmental Research and Public Health, 15(3), 431*. https://doi:10.3390/ijerph15030431

Rahman, S., Mirza, A.-S., Wathington, D., Green, S., Mayers, Y., Iranmanesh, E., & Woodard, L., (2021). Chronic disease and socioeconomic factors among uninsured patients: A retrospective study. *Chronic Illness, 17(1), 53 – 66*. https://doi:10.1177/1742395319828430

Rao, D., Meyer, J., Maurer, M. & Shiyanbola, O. O., (2021). Perceptions of psychosocial and interpersonal factors affecting self-management behaviors among African Americans with diabetes. *Exploratory Research in Clinical and Social Pharmacy, 3, 100057*. https://doi:10.1016/j.rcsop.2021.100057

Reynolds, R., Dennis, S., Hasan, I., Slewa, J., Chen, W., Tian, D., Bobba, S., & Zwar, N.,

(2018). A systematic review of chronic disease management interventions in primary care. *BMC Family Practice, 19(1), 11*. https://doi:10.1186/s12875-017-0692-3

Richardson, S., Shaffer, J. A., Falzon, L., Krupka, D., Davidson, K. W., & Edmondson, D., (2012). Meta-analysis of perceived stress and its association with incident coronary heart disease. *The American Journal of Cardiology, 110(12), 1711 – 1716*. https://doi:10.1016/j.amjcard.2012.08.004

Richmond, C. A. M., & Ross, N. A., (2009). The determinants of first nation and intuit health: a critical population health approach. *Health and Place, 15(2), 403 – 411*. https://doi:10.1016/j.healthplace.2008.07.004

Riegel, B., Moser, D. K., Harleah, G. B., Dickson, V. V., Dunbar, S. B., Lee, C. S., Lennie, T. A., Lindenfeld, J., Mitchell, J. E., Treat-Jacobson, D. J., Webber, D. E., & American Heart Association Council on Cardiovascular and Stroke Nursing, Council on Peripheral Vascular Disease & Council on Quality of Care and Outcomes Research, (2017). Self-care for the prevention and management of cardiovascular disease and stroke: A scientific statement for healthcare professionals from the American Heart Association. *Journal of the American Heart Association, 6(9), e006997*. https://doi:10.1161/JAHA.117.006997

Rimando M., (2015). Perceived barriers to and facilitators of hypertension management among underserved African American older adults. *Ethnicity & Disease, 25(3), 329 – 336*. https://doi:10.18865/ed.25.3.329

Rippe J. M., (2018). Lifestyle strategies for risk factor reduction, prevention, and

treatment of cardiovascular disease. *American journal of Lifestyle Medicine, 13(2), 204 – 212*. https://doi:10.1177/1559827618812395

Rosenman, R., Tennekoon, V., & Hill, L. G., (2011). Measuring bias in self-reported data. *International Journal of Behavioral & Healthcare Research, 2(4), 320 – 332*. https://doi:10.1504/IJBHR.2011.043414

Rosenstock, I. M., (1974). The health belief model and preventive health behavior. *Health Education Monographs, 2(4), 354 – 386*. https://doi:10.1177/109019817400200405

Saab, K. R., Kendrick, J., Yracheta, J. M., Lanaspa, M. A., Pollard, M., & Johnson, R. J., (2015). New insights on the risk for cardiovascular disease in African Americans: the role of added sugars. *Journal of the American Society of Nephrology: JASN, 26(2), 247 – 257*. https://doi:10.1681/ASN.2014040393

Salehi, N., Janjani, P., Tadbiri, H., Rozbahani, M., & Jalilian, M. (2021). Effect of cigarette smoking on coronary arteries and pattern and severity of coronary artery disease: a review. *Journal of International Medical Research.* https://doi:10.1177/03000605211059893

Sanchis-Gomar, F., Perez-Quilis, C., Leischik, R., & Lucia, A., (2016). Epidemiology of coronary heart disease and acute coronary syndrome. *Annals of Translational Medicine, 4(13), 256*. https://doi:10.21037/atm.2016.06.33

Schaffler, J., Leung, K., Tremblay, S., Merdsoy, L., Belzile, E., Lambrou, A., & Lambert, S. D. (2018). The effectiveness of self-management interventions for individuals with low health literacy and/or low income: A descriptive systematic

review. *Journal of General Internal Medicine, 33(4), 510 – 523*. https://doi:10.1007/s11606-017-4265-x

Schwab, D. & Margaritis, I., (2020). How do they feel about it? Testing a new mixed method survey tool to assess collective emotional status. *The Qualitative Report,25(8), 2067 – 2084*. https://doi:10.46743/2160-3715/2020.4244

Setia, M. S., (2016). Methodology series module 3: cross-sectional studies. *Indian Journal of Dermatology, 61(3), 261 – 264*. https://doi:10.4103/0019-5154.182410

Shaw, S. J., Armin, J., Torres, C. H., Orzech, K. M., & Vivian, J., (2012). Chronic disease self-management and health literacy in four ethnic groups. *Journal of Health Communication, 17(3), 67 – 81*. https://doi:10.1080/10810730.2012.712623

Shreya, D., Zamora, D. I., Patel, G. S., Grossmann, I., Rodriguez, K., Soni, M., Joshi, P. K., Patel, S. C., & Sange, I., (2021). Coronary artery calcium score - A reliable indicator of coronary artery disease? *Cureus,13(12), e20149*. https://doi:10.7759/cureus.20149

Siboni, F. S., Khatooni, M. & Atashi, V., (2018). Health-promoting lifestyle practices among patients with chronic diseases and its related factors. *Social Health and Behavior, 1(2), 67 –73*. https://doi:10.4103/SHB.SHB_29_18

Skolarus, L. E., Sharrief, A., Gardener, H., Jenkins, C., & Boden-Albala, B. (2020). Considerations in addressing social determinants of health to reduce racial/ethnic disparities in stroke outcomes in the United States. *Stroke, 51(11), 3433 – 3439*. https://doi:10.1161/STROKEAHA.120.030426

Sloan, A., & Bowe, B. (2014). Phenomenology and hermeneutic phenomenology: the philosophy, the methodologies and using hermeneutic phenomenology to investigate lecturers' experiences of curriculum design. *Quality & Quantity, 48(3), 1291 - 1303*. https://doi:10.1007/s11135-013-9835-3

Smith, J. A. (1996). Beyond the divide between cognition and discourse: using interpretative phenomenological analysis in health psychology. *Psychology & Health, 11(2), 261 – 271*. https://doi:10.1080/08870449608400256

Smith, J. A., & Osborn, M. (2015). Interpretative phenomenological analysis as a useful methodology for research on the lived experience of pain. *British Journal of Pain, 9(1), 41 – 42*. https://doi:10.1177/2049463714541642

Sun, L., Pennells, L., Kaptoge, S., Nelson, C. P., Ritchie, S. C., Abraham, G., Arnold, M., Bell, S., Bolton, T., Burgess, S., Dudbridge, F., Guo, Q., Sofianopoulou, E., Stevens, D., Thompson, J. R., Butterworth, A. S., Wood, A., Danesh, J., Samani, N. J., Inouye, M., Di Angelantonio, E. (2021). Polygenic risk scores in cardiovascular risk prediction: A cohort study and modelling analyses. *PLoS Medicine, 18(1), e1003498*. https://doi:10.1371/journal.pmed.1003498

Sutton, J., & Austin, Z. (2015). Qualitative research: data collection, analysis, and management. *The Canadian journal of hospital pharmacy, 68(3), 226 – 231*. https://doi:10.4212/cjhp.v68i3.1456

Taylor, H. A., Henderson, F., Abbasi, A., & Clifford, G., (2018). Cardiovascular disease in African Americans: innovative community engagement for research recruitment and impact. *American Journal of Kidney Diseases: The Official*

Journal of The National Kidney Foundation, 72(1), 43 – 46. https://doi:10.1053/j.ajkd.2018.06.027

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of Graduate Medical Education, 7(4), 669 – 670.* https://doi:10.4300/JGME-D-15-00414.1

Thotamgari, S. R., Sheth, A. R. & Grewal, U. S., (2022). Racial disparities in cardiovascular disease among patients with cancer in the United States: the elephant in the room. *EClinical Medicine, 44, 101297.* https://doi:10.1016/j.eclinm.2022.101297

Tian, W. H. & Tien, J., (2020). Health behaviors and health status among middle-aged and older adults with chronic diseases in Taiwan. *International Journal of Environmental Research and Public Health, 17, 7196.* https://doi:10.3390/ijerph17197196

Tsai, Ching, C., Ai-Hsien, L., Chung-Ming, T., Kai-Lin, H. & Chii, J., (2019). Effectiveness of a tailored lifestyle management program for middle-aged women with coronary artery disease: A preliminary study. *Journal of Nursing Research, 27(1), E5.* https://doi:10.1097/jnr.0000000000000271

United States Census Bureau. (2021). Quick facts Katy, City, Texas. Retrieved from https://www.census.gov/quickfacts/katycitytexas

Veronese, N., Yang, L., Piccio, L., Smith, L., Firth, J., Marx, W., Giannelli, G., Caruso, G. M., Cisternino, A. M., Notarnicola, M., Donghia, R., Barbagallo, M. & Fontana, L., (2020) Adherence to a healthy lifestyle and multiple sclerosis: a

case–control study from the UK Biobank. *Nutritional Neuroscience*. https://doi:10.1080/1028415X.2020.1846357

Wang, X., & Cheng, Z., (2020). Cross-sectional studies: strengths, weaknesses, and recommendations. *Chest, 158(1), 65 – 71*. https://doi:10.1016/j.chest.2020.03.012

Yu, E., Malik, V. S., & Hu, F. B. (2018). Cardiovascular disease prevention by diet modification: JACC health promotion series. *Journal of the American College of Cardiology, 72(8), 914 – 926*. https://doi:10.1016/j.jacc.2018.02.085

Zabler, B., Tsai, P. Y., Fendrich, M., Cho, Y., Taani, M. H., & Schiffman, R. (2018). Effect of a nurse case management intervention for hypertension self-management in low-income African Americans. *Contemporary Clinical Trials, 71, 199 – 204*. https://doi:10.1016/j.cct.2018.06.011

Zaninotto, P., Head, J. & Steptoe, A., (2020). Behavioral risk factors and healthy life expectancy: evidence from two longitudinal studies of ageing in England and the US. *Science Rep, 10, 6944*. https://doi:10.1038/s41598-020-63843-6

Zanjani, S., Tol, A., Mohebbi, B., Sadeghi, R., Jalyani, K. N., & Moradi, A. (2015). Determinants of healthy lifestyle and its related factors among elderly people. *Journal of Education and Health Promotion, 4, 103.* https://doi:10.4103/2277-9531.171817

Zhang, X., Tan, S. S., Fierloos, I., Zanutto, O., Alhambra-Borras, T., Vasiljev, V., Bennett, S., Rentoumis, T., Buranello, A., Macchione, S., Rouwet, E., Grieken, A. V. & Raat, H., (2019). Evaluation design of the social engagement framework for addressing the chronic-disease-challenge (SEFAC): a mindfulness-based

intervention to promote the self-management of chronic conditions and a healthy lifestyle. *BMC Public Health, 19, 664.* https://doi:10.1186/s12889-019-6979-7

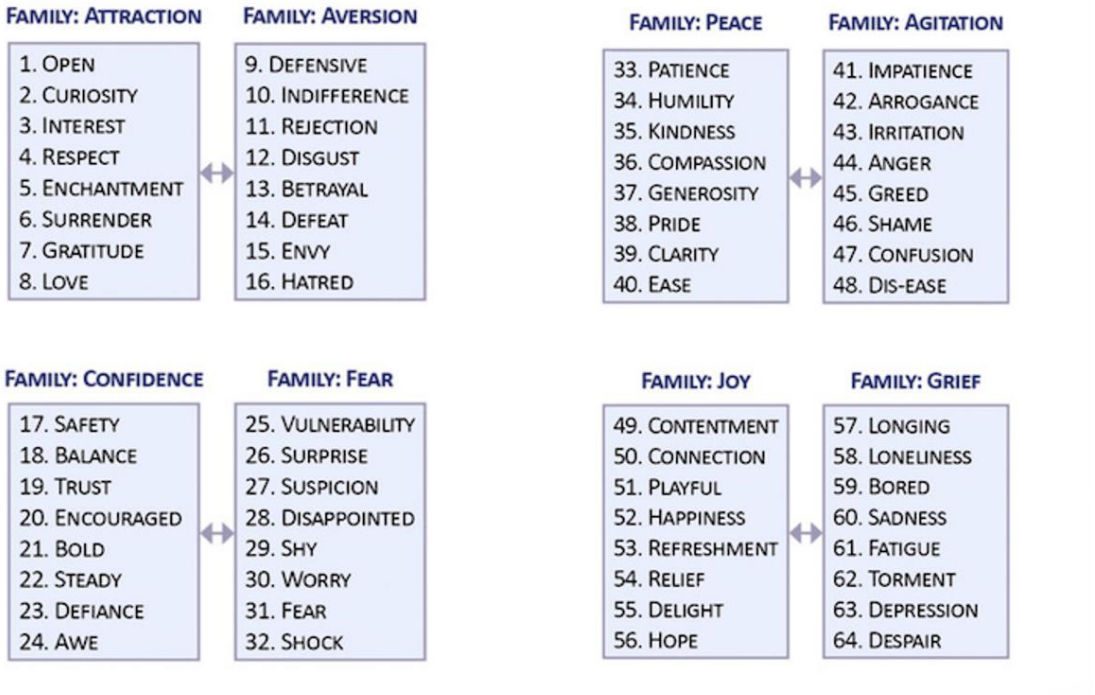
Zhao, J., Stockwell, T., Roemer, A., Naimi, T., & Chikritzhs, T. (2017). Alcohol consumption and mortality from coronary heart disease: An updated meta-analysis of cohort studies. *Journal of Studies on Alcohol and Drugs, 78(3), 375 – 386*. https://doi:10.15288/jsad.2017.78.375

Appendix A: Interview Questions

Interview phase	Topic	Interview questions
Introduction and exploration of past aspects	Disease management knowledge and source of information	1. Please tell me your age and gender? 2. What is your educational background and occupation? 3. Please tell me the present status with your CHD?
Exploration of present aspects	Understanding and utilization of healthy lifestyle information	4. What have you been told about the lifestyle practices of managing CHD and what do you understand about them? 5. Tell me your experience in trying to maintain a healthy lifestyle for managing your CHD?
Exploration of present aspects	Navigating, maintaining, and sustaining healthy lifestyle	6. Please describe how you navigate using the healthy lifestyle guidelines? 7. What resources and support do you receive to help you adhere to the healthy lifestyle guidelines?
Exploration of present aspects	Accessible and available support and resources to sustain healthy behaviors	8. what has been your experience of support from your family and community in adhering to healthy lifestyles? 9. Please can you describe the role that your family and community play concerning you maintaining a healthy lifestyle?
Exploration of present aspects	Management and duration of adhering to healthy behaviors	10. Please describe how long and why you maintain long-term adherence to a healthy lifestyle?
Exploration of present aspects	Perceived risks and benefits of adhering to healthy behaviors	11. How would you describe your views/experiences of non-medical factors that may hinder your consistent adherence to the healthy lifestyle guidelines? 12. Please what do you understand about the risks and benefits of maintaining adherence to the healthy lifestyle guidelines?
Exploration of additional information	Additional information on the above categories	13. Is there anything else you would like to say about your experience trying to sustain a healthy lifestyle?

Appendix B: Taxonomy for Use in Prompts

Taxonomy of Emotions by Family and Opposites



Source: Schwab, M. & Margaritis, V. (2020). How Do They Feel About It? Testing A New Mixed Methods Survey Tool to Assess Collective Emotional Status. *The Qualitative Report, 25* (8), Article 3: 2067-2084.

Appendix C: Participant Recruitment Flyer

Are you practicing healthy lifestyle habits?

We are conducting a research study that will look at the adherence, lack of adherence and everything in between of healthy lifestyles and behaviors that manage Coronary Heart Disease (CHD). This research is designed to better understand the lived experiences of managing CHD through recommended healthy lifestyle practices.

INTERESTED?

Please contact the Researcher Tina Alfred at [redacted]. A $20giftcard will be provided as a thank you for your participation.

WHO IS ELIGIBLE?

Adult Male or Female Black/African American between the ages of 40 to 70 years, must be on Medicare or Medicaid or no Insurance, lives in Katy Texas, speaks English and diagnosed with Coronary Heart Disease (CHD).

DESCRIPTION OF STUDY

The purpose of the study is to investigates the lived experience in the management and self - management of Coronary Heart Disease (CHD) among low-income middle-aged and older African Americans, which include their adherence, lack of commitment, and everything in -between. The eligible participants are interviewed via telephone on their lived experiences on their adherence to the healthy lifestyles such as physical exercise, eating habits and abstinence of tobacco smoking and excessive drinking, that manage their CHD condition. The study is beneficial in fostering educational awareness on healthy behaviors to minimize the risk of multiple chronic illnesses and to effectively manage the present condition.

Want to learn more?

Please contact the Researcher @ [redacted]