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Exploring Reciprocal Determinism, Behavior Capability, Observational Learning, and Self-Efficacy on Protective Behaviors for African American Millennial Women with Cardiovascular Disease and Depression

Ja'Sent Angelic Brown
Walden University

Walden University

College of Health Sciences and Public Policy

This is to certify that the doctoral study by

Ja'Sent Brown

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. Brieah Hudson, Committee Chairperson, Public Health Faculty

Dr. Berthline Isma, Committee Member, Public Health Faculty

Chief Academic Officer and Provost

Sue Subocz, Ph.D.

Walden University

2025

Abstract

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MSW, Walden University, 2019

BA, The University of the District of Columbia, 2006

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Public Health

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August 2025

Abstract

Cardiovascular disease plays a significant role in the number of death and disabilities around the world. The purpose of this qualitative study was to gain an in-depth understanding of how the comorbidity of cardiovascular disease and depression uniquely present in young African American women, how these two diseases influence cardiovascular health protective factors, and how components of the social cognitive theory contribute to their cardiovascular health outcomes. Components of the social cognitive theory served as the conceptual framework for this study. Using a hermeneutic phenomenology approach, data was gathered through individual interviews and analyzed using Otter software to identify themes aligned under the identified components of the social cognitive theory. The sample size was 15 and the inclusion criteria was African American women, ages 18-42, who have a cardiovascular disease or cardiovascular disease risk factor, and a diagnosis of depression. Key patterns included emotional responses, environmental barriers, healthcare communication gaps, and personal health behaviors. Findings indicated the intertwined nature of mental and physical health, emphasizing the need for integrated care approaches, community resource enhancement, generational influences acknowledgement, and a need for improved patient education. Findings emphasize the importance of focusing on improving medical communication for African American millennial women through culturally competent approaches, which could improve the trajectory of disease progression at an earlier age.

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Dedication

Without Christ, I am nothing. I first acknowledge that there is someone higher than me and he has always guided and made my path clear, so thanks be to God who gave me this victory. To my husband, thank you for your patience and love. To my children, you two have believed in me even when I didn't believe in myself. Thank you for never making me feel like a bad mom when I had to turn in an assignment instead of cooking the best meal. You two are the reason why I get up every day! To my parents, you sacrificed so much for me to get to this moment. Well done, you all did great! To my sisters who held my secrets and have my back, I love you dearly. To my friends who have cheered me on and wouldn't let me quit no matter how much I tried to convince them that it made more sense, thank you. To my dear friend, Giana, who passed away and inspired me to take on this study, your legacy will live on through this research. Your heart was too big for this world but know that you will help so many young African American women battling cardiovascular disease. Thank you.

Acknowledgments

Thank you to my dissertation committee. Dr. Hudson, you wouldn't let me quit and I am eternally grateful for your push. Dr. Isma, you wouldn't let me compromise, thank you for demanding excellence. Dr. Barnett, you helped me to transition from a student, to a doctoral candidate, to a doctoral professional and I am grateful for your shared passion around the subject as well as your guidance.

Family, friends, sorority sisters, and colleagues, thank you for your patience and understanding as I went through this journey. You all encouraged me and believed in me when I didn't believe in myself. Finally, thank you to the ancestors for your sacrifice. You endured so much turmoil for me to have this honor and I acknowledge you. To my grandmothers and great grandmother ancestors, thank you for your sacrifice as Caribbean women and African American women. Your story is my story, and our story will be my daughter's story. Thank you.

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Section 1: Introduction of the Study

Literature Review

The World Health Organization (WHO, 2021) conducted a global study of cardiovascular disease which found that over 17.9 million people suffer from some form of cardiovascular disease and that over 32% of global deaths are caused by the disease. The WHO (2021) also found in this research that one in four women were diagnosed with some form of cardiovascular disease. This is relevant to this research because it proves that cardiovascular disease is a world-wide concern which effects women disproportionately and should be addressed as a public health emergency.

The Epidemiology Data Center (2023) conducted research about the 1994 National Institute on Aging and the National Institute on Nursing Research multiple site longitudinal, epidemiological study to further understand the health of women in the United States. They found that cardiovascular disease is the leading cause of illness amongst women in the United States and that women who had a healthier diet and exercise regularly during their mid-life, had lower cholesterol and decreased chances of cardiovascular disease later in life. This information is relevant to this study because it continues the WHO's research on the effects of cardiovascular disease on women and proves that participating in protective factors at earlier ages will help decrease disease prognosis and progression.

Millender et al. (2021) focused on managing comorbidities of cardiovascular disease and depression while battling systemic racism and other social determinants of

health. The researchers found that 50% of women who have been diagnosed with cardiovascular disease have also reported comorbidity of depression and depressive symptoms, African American women's depressive symptoms were increased compared to their white counterparts, and that these depressive symptoms kept them from seeking cardiovascular protective factors. Research conducted is relevant to this study because it shows the significance between cardiovascular disease and depression amongst African American women and it identified limitations in their study about how depression is heightened by personal and environmental factors.

Sariaslan et al. (2022) expanded on Millender et al.'s (2021) research by studying women with comorbidities such as cardiovascular disease, mental health, and addiction and feelings of discrimination based on race. What they found is that women who experience discrimination can lead to higher incidence of premature mortality and enhanced negative mental and behavioral health outcomes. Sariaslan et al. exposed that mortality can come at an earlier age when there are multiple comorbidities including cardiovascular disease and mental health concerns and that there may be unique barriers that African American women face because of their race.

As themes of race and healthcare discrimination continue to arise in research such as Sariaslan et al. (2022) and Millender et al. (2021), I found that Ross et al. (2020) conducted a study on the effects of cardiovascular disease on African American women who had given birth and how race played an integral role with cardio-metabolic disease, but these incidents happened at earlier ages. In this study, they found that young African

American women who experience pregnancy specific cardio-metabolic diseases such as preeclampsia, are more likely to continue experiencing cardiovascular diseases such as high blood pressure post pregnancy and that there is also an increased chance of mental health concerns such as postpartum disease and depression. This research is relevant because African American women, ages 25-45, are at a stage in their life where they might become pregnant, and this could begin the correlation of cardiovascular disease and depression but further research was needed in this age group to gain a better understanding of how this specifically effects the population.

As themes continued to arise around healthcare for young African American women with cardiovascular disease and depression, I continued to identify that there is a need to seek a better understanding of the individual needs for this population. Vargas et al. (2021) studied comorbidities of cardiovascular disease and depression in African American women and their interaction with healthcare professionals. In this study, they found that African American women had a higher prevalence of hypertension, depressive disorder, and identified feeling discriminated against by society including medical professionals which contributes to their decrease in seeking medical care. This is relevant to this study because it focuses on minority stress theory which explains the phenomena of racial discrimination intensifying psychological disorders such as stress and depression and how it directly relates to comorbidities of cardiovascular disease protective factors such as diet and exercise and shows a need to look at both external and internal factors that contribute to disease progression.

When exploring how to appropriately work with African American women and the healthcare system, Vatsa et al's. (2021) research identified the need for interventions for African American women to not only be culturally appropriate, but age appropriate as well. They stated that younger African American women ate more fast food, had a higher salt intake, and exercised less compared to their older counterparts and that they were more likely to have high blood pressure due to unhealthier lifestyle habits as a result of social determinants of health such as socioeconomic status. This is significant because it identifies that interventions for cardiovascular protective factors are needed at an earlier age for African American women and need to be tailored accordingly.

When shifting the focus to younger Black women, Spikes et al. (2019) conducted research that focused on women ages 18-45 years old with hypertension and depression. This study found that depressive symptoms were a contributor to how these women coped and made decisions about blood pressure medication management which. This research begins the conversation of looking at cardiovascular disease risk factors and depression in younger ages, but limitations of the study include only looking at hypertension and not other cardiovascular disease or disease risk factors.

Spikes et al. (2019) looked at disease progression in younger African American women. Martinson et al. (2022) explored this age group further but looked at all women and acknowledged that because of enhanced instant information through technology, millennials have improved certain heart-health habits. They found that smoking was improved, however eating habits and exercise remain a concern for this age group. This

research is important to this study because it addresses cardiovascular disease in Millennials, but it fails to identify the unique challenges faced specifically by African American women in this age group.

Disease management and protective factors are often influenced by an individual's environment, society, and self-efficacy. When looking at these influencers and adding in the multifaceted complexity of race, it can be challenging to find a theoretical model that encompasses the necessary components to gather the research needed to answer health questions. LaMorte (2022) researched Bandura who created the social learning theory in the 1960s which later evolved into the social cognitive theory (SCT) in the 1980s. Their research explains that SCT is grounded in the theory that people make decisions based on influences from their personal beliefs, their environments, and behaviors. The SCT model is the most appropriate model to use and is relevant to this study because it aligns with the nature of the study which looks at a specific population and both internal and external influences on cardiovascular disease protective factors while battling comorbidities.

Exploring further into ensuring that the modality and design of this research is sound and valid, Williams and Lewis (2021) identified the uniqueness of working with Black women and how black women develop their gender racial identity. The research identified that health and protective factors cannot be addressed unless identity and external influences are also included. Williams and Lewis's (2021) findings are important to this research because the six constructs in the social cognitive theory become even

more relevant for mental fortitude of engaging in protective factors, and how external influences affect success.

Dorsey and Williams-Butler (2022) continued looking at race and age and the intersectionality of health. They studied how adolescent urban black girls have unique societal and internal pressures that differed from their white counterparts. Dorsey and Williams-Butler found that identity is complex for these girls and can take on multiple facets within their own community after looking at the ecological systems and environmental factors. The study provided relevancy to this research because it emphasized the unique challenges of young Black women who are influenced by external environmental factors which can have a direct effect on their social cognitive ability specifically their reciprocal determinism, self-efficacy, and observational learning.

Gaining a deeper and more meaningful understanding of African American millennial women's unique environmental and self-efficacy response is essential to appropriate healthcare if we are to decrease the gap in health disparities. Hornbuckle et al. (2018) conducted research to explore the social change of creating interventions and healthcare environments that are culturally competent and educated on the unique needs of African American women. What they found is that spaces where African American women can get medical care to manage comorbidities in a safe and welcoming environment and that communities are built to support cardiovascular protective factors such as sidewalks, playgrounds, and gyms are needed to improve their health outcomes.

This research aligns with taking a social cognitive approach using self-efficacy, behavioral capability, and reinforcements which I explored.

Jones et al. (2019) fortified the concept of cultural competence and how race plays a significant role in the healthcare and health management system. They found that African American women with comorbidities also must fight systemic racial inequities, societal discriminations, environmental influences and physical differences in how the diseases affect the body based on race. In addition, they found that the historical racial unethical medical practices in the country, specifically in the south, continues to influence African American women accessing healthcare. As alarming as this is, their research is relevant to this study because it addresses the learned behavior with not accessing medical care and mistrust of the healthcare system for African American women.

It is evident that there are unique challenges that young African American women face with managing health outcomes, but further research is needed to understand the breath of these challenges and the phenomena associated with them. Morrow et al (2015) discussed how Colaizzi's method, the phenomenological method, followed seven steps to understand the essential and authentic voice of individuals in a phenomenological qualitative study. The researchers found that this method continues to remain relevant in qualitative research today. The phenomenological method is important to this study because this approach will ensure that the researcher is capturing the voices of participants and not imposing their own voice or bias whether conscious or unconscious.

Problem Statement

Cardiovascular disease is a world-wide and local concern that should be addressed as a public health emergency and with the same urgency as any other national emergency (WHO, 2021). For women in the United States, cardiovascular disease is the leading cause of illness but can be improved when they are participating in protective factors at earlier ages (The Epidemiology Data Center, 2023). In addition, African American women are disproportionately affected by cardiovascular disease and are more likely to die from the disease compared to their White counterparts (Millender et al., 2021). While battling cardiovascular disease, 50% of African American women also suffered from some form of depression and that African American women's depressive symptoms were increased compared to their white counterparts, and that these depressive symptoms kept them from seeking cardiovascular protective factors (Millender, et. al, 2021). While research has identified that implementing protective factors can improve cardiovascular trajectories, African American women have reported that interventions are often discussed later in life, after disease progression (Vatsa et al., 2021).

Although researchers have investigated these issues, the topic has not been explored in this way: African American women millennials, ages 27-42, with cardiovascular disease and depression risk factors, may face unique barriers to protective factors to reduce disease progression. There is a lack of information about young African American women millennials, ages 27-42, who suffer from cardiovascular disease,

cardiovascular disease risk factors and depression, and their ability to practice protective factors such as medication management, healthy diet, and exercise.

Section 2: Research Design and Data Collection

Purpose of the Study

The intent of this phenomenological study was to gain more understanding of how comorbidities of cardiovascular disease, cardiovascular disease risk factors, depression and social constructs effect young African American women millennials when making decisions about their heart health such as taking prescribed cardiovascular medication, consistently exercising, and consuming heart-healthy food to prevent disease progression.

Research Questions

To capture the thoughts and feelings of the participants in this study, a qualitative paradigm research design was the most appropriate method. Fifteen individual interviews were conducted to collect data as this is the most appropriate method to capture the phenomena and personal experiences of the participants. The dependent variables are cardiovascular disease diagnosis, cardiovascular risk factors (including current high blood pressure, high cholesterol, and obesity), and depression diagnosis. The independent variables are reciprocal determinism, behavioral capability, observational learning, and self-efficacy. The research question was *What role does reciprocal determinism play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?* To answer this overarching research question using the social cognitive theory constructs identified, the following had to be answered:

RQ1: What role does reciprocal determinism play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?

RQ2: What role does behavioral capability play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decision as it pertains to cardiovascular disease protective behaviors?

RQ3: What role does observational learning play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?

RQ4: What role does self-efficacy play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?

Theoretical Framework

The theoretical framework used for this study was Bandura's SCT. In the late 1960s, Bandura created the social learning theory which later developed into the SCT in 1986. Bandura argued that learning happens socially and includes dynamic and reciprocal interactions between the individual, environment, and their behavior. SCT is unique as it places emphasis on social influence and external and internal social reinforcement while also considering past experiences which all influence and reinforce an individual's behavior and why they engage in this behavior. SCT does this by concentrating on 6 social constructs: reciprocal determinism, behavioral capability, observational learning,

reinforcements, expectations, and self-efficacy. I used components of the social cognitive theory as it was the most appropriate theory to understand how the individual personally experiences cardiovascular disease and depression, and how learned information and behaviors contribute to their decision making of the protective factors of medication adherence, exercise, and diet (see LaMorte, 2022). I focused on learned experiences and behaviors. Depressive symptoms can cause an individual to lack the cognitive and physical ability to take medications as prescribed, have the energy to exercise regularly, and can cause an individual to overeat, lose their appetite, or crave unhealthy food (Spikes et al., 2019). I addressed these behaviors by focusing on questions related to four constructs of the social cognitive theory, reciprocal determinism, behavioral capability, observational learning, and self-efficacy.

Method and Design

I used a phenomenological qualitative method. Using this method allows the researcher to capture data that can't be easily identified numerically such as perception, feelings, and phenomena (Jones et al., 2019). To address the research questions, interviews of African American millennial women diagnosed with cardiovascular disease, cardiovascular disease risk factors, and comorbidity of depression were conducted. I specifically adopted the hermeneutic phenomenology approach (see Neubauer et al., 2019) to gain a better understanding of the individual experience, lifeworld, and situated freedom to gain a deeper understanding of the thought-process of African American

women Millennials when making heart-healthy decisions without the preconceived assumptions of the researcher.

Population

The population from which the sample was selected was African American millennial women, ages 27-42, who have a cardiovascular disease diagnosis or cardiovascular disease risk factor diagnosis, and comorbidity of depression diagnosis. The qualitative sample size was 15 as this was a qualitative study with a specific population and defined objectives.

Data Collection Technique

The research design included the recruitment of African American woman millennials who have been diagnosed with cardiovascular disease, a cardiovascular disease risk factor, and have a comorbidity of depression. I distributed an invitation via email at a local nonprofit organization and a women's professional networking organization where the population is comprised of predominately African American women. The flyer invites volunteers to contact the researcher by email or phone to volunteer. I emailed the consent form to all individuals who were interested in the study. Individuals who responded via email affirming their consent were sent an eligibility questionnaire. The following questions were used to verify eligibility:

1. Are you between the ages of 27 and 42?
2. Do you identify as an African American female?

3. Do you have a cardiovascular disease or a cardiovascular risk factor such as high blood pressure, high cholesterol, or being overweight?

4. Do you suffer from depression?

5. Have you notified your mental health or primary care provider of this study?

6. Have you received approval from your mental health or primary care provider to participate in this study?

Once eligibility was established, an interview protocol was developed to address the problem and purpose of this study. The interview guide was created using the social cognitive theory (see LaMorte, 2022) and hermeneutic phenomenology approach (see Neubauer et al., 2019). Interviewed the volunteer via phone, online virtual video platform, and in person (depending on the volunteer's preference). I used Otter software and notetaking to transcribe all interviews.

Section 3: Presentation of the Results and Findings

Overview

The purpose of this qualitative study was to gain a more in-depth understanding of how the comorbidity of cardiovascular disease and depression uniquely present in young African American women, how these two diseases influence cardiovascular health protective factors, and how components of the social cognitive theory contribute to their cardiovascular health outcomes. The four research questions answered in this study were (a) What role does reciprocal determinism play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors? (b) What role does behavioral capability play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when deciding as it pertains to cardiovascular disease protective behaviors? (c) What role does observational learning play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors? and (d) What role does self-efficacy play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors? The next section contains a discussion of

the setting, demographics, data collection, data analysis, evidence of trustworthiness, results, and summary.

Setting

Participants in this phenomenological qualitative study were African American women millennials. In this qualitative phenomenological study, there was no specific setting, participants were recruited from the United States. In this study, the personal conditions could have influenced African American women millennials' perception of reciprocal determination, behavioral capabilities, observational learning, and self-efficacy. Social cognitive theory constructs, specifically self-efficiency, observational learning, self-control, behavioral capability, and reinforcement impact health outcomes and the effectiveness of interventions (Islam et al., 2023). Researchers have supported the importance of incorporating and evaluating different conceptual structures of behavioral theories when planning health promotion initiatives (Honicke et al., 2023). The interviewed African American woman millennials' perceptions differed based on how reciprocal determination, behavioral capabilities, observational learning, and self-efficacy effectively influence their cardiovascular disease protective behaviors based on their experiences with the factors.

Demographics

Data in this qualitative phenomenological study were collected from 15 participants, where data saturation was achieved. Data saturation refers to the point where collecting additional responses would not have yielded new insights or findings (Hennink

& Kaiser, 2022; Rahimi, 2024). The point of saturation assists the researcher in making informed decisions about data collection and analysis (Naeem et al., 2024). When analyzing the collected data, I realized that participants' responses started becoming redundant by the 15th respondent, which was an indicator of achieving saturation.

I promoted participants' confidentiality by assigning them pseudonyms. Ensuring confidentiality is an important ethical consideration to protect participants (Dougherty, 2021). Ensuring confidentiality has an influence on research outcomes, making it essential to comply with the concept as an approach for protecting privacy (Kang & Hwang, 2023; Surmiak, 2020). I used pseudonyms to ensure that no personally identifiable information such as names was included in the transcripts. I was the only one who had access to the recordings and interview transcripts. I included verbatim responses in the results sections, but the presented information cannot be used to de-identify participants.

Table 1 contains African American woman Demographic information supports trustworthiness, specifically transferability because the content provides readers with an understanding of the participants who provided insights into the study.

Table 1

Demographic Information

Name	Age	African American	Female	Cardiovascular disease or a cardiovascular risk factor	Depression
CMc	33	Yes	Yes	Yes	Yes
SW	38	Yes	Yes	Yes	Yes
MA	42	Yes	Yes	Yes	Yes
SM	40	Yes	Yes	Yes	Yes
TB	42	Yes	Yes	Yes	Yes
GH	29	Yes	Yes	Yes	Yes
JA	28	Yes	Yes	Yes	Yes
SB	27	Yes	Yes	Yes	Yes
CM	39	Yes	Yes	Yes	Yes
CC	25	Yes	Yes	Yes	Yes
EJ	34	Yes	Yes	Yes	Yes
TD	26	Yes	Yes	Yes	Yes
LCS	41	Yes	Yes	Yes	Yes
NHM	35	Yes	Yes	Yes	Yes
FU	36	Yes	Yes	Yes	Yes

Data Collection

I collected data from 15 participants. I conducted one-on-one interviews with 15 African American woman millennials. In this qualitative phenomenological study, interviews, which were the only data source were conducted using in-depth semistructured questions. The use of semistructured interview questions supported in collection of in-depth data using follow-up prompts (Ruslin et al., 2022). Follow-up prompts promoted probing, enabling participants to provide detailed responses related to the topic of focus (Bhalla et al., 2023)**.** The open-ended nature of the interview questions provided participants with an opportunity to explain and clarify their experiences.

I recorded each interview using Zoom (https://www.zoom.com/). Zoom is a videoconferencing platform that allows the collection of in-depth data that can be used in answering research questions (Archibald et al., 2019; Falter et al., 2022). I conducted Zoom-based interviews between March 6, 2025, and April 1h, 2025. Each interview lasted for approximately 51 minutes (see Table 2). The use of Zoom allowed for transcribing each interview. After the automated Zoom transcription, I listened to the interviews when reading the transcripts to ensure the accuracy of the content. I did not experience any variations in data collection from the plan I presented in Section 2. Additionally, I did not experience any unusual circumstances during data collection.

Table 2

Duration of Each Interview in Minutes and Average

Name	Minutes
CMc	43
SW	48
MA	45
SM	44
TB	47
GH	56
JA	58
SB	47
CM	59
CC	55
EJ	44
TD	56
LCS	51
NHM	55
FU	56
Average	51

Data Analysis

I performed an interpretative phenomenological analysis (IPA)of the collected participants' data to address the problem statement and answer the research questions. The IPA is a suitable approach for assessing qualitative data to assess participants' lived experiences (Smith & Osborn, 2015). The focus of the IPA is trying to make sense of participants' experiences (Nizza et al., 2021). The IPA enabled me to systematically assess the collected data, to identify codes, categories, and themes. The IPA process involves immersing oneself in the data, developing emergent themes, searching for connections across emergent themes, moving to the next case, identifying patterns across cases, and performing deeper interpretations (Miller et al., 2018). Using the IPA promoted understanding of African American women millennials' experiences.

Familiarizing with the data involves re-reading the transcribed data numerous times. Re-reading the data allowed me to gain a detailed understanding of the collected data. When re-reading the data, I wrote the initial ideas that were recurrent in participants' responses on a notebook for future reference. The process of re-reading the transcripts resulted in immersing self in in the collected data, gaining an understanding of the respondents' experiences.

After gaining understanding participants' interview responses, I imported all 15 transcripts into MAXQDA (https://www.maxqda.com/) to promote data management and coding. MAXQDA is computer-aided qualitative data analysis software that enables researchers to organize and analyze data. The IPA steps of developing emergent themes,

moving to the next case, and identifying patterns across cases occurred simultaneously. Developing emergent themes involved performing inductive coding to identify meaning from participants' responses. Inductive coding involved identifying recurrent ideas from participants' responses. I combined the codes to create themes, which I used in answering the research questions.

Table 3 contains the codes, categories, and themes identified from the data. The categories identified included reciprocal determinism, behavioral capability, observational learning, and self-efficacy. I did not identify any discrepant cases in the participants' responses. Also, I did not find any contradicting emergent patterns in participants' responses. In the results section, I included deeper interpretations of the collected data.

Table 3

Codes, Categories, and Themes

Codes	Categories	Themes
Depression is hitting me so hard.	Reciprocal determinism	Personal Factors Influenced by Depression
Do not have the motivation.	Self-efficacy	Personal Factors Influenced by Depression
Felt helpless	Self-efficacy	Depression as a barrier to self-efficacy
What is the point	Self-efficacy	Depression as a barrier to self-efficacy
Overweight and feel so depressed		Personal Factors Influenced by Depression
Do not think it will help.	Self-efficacy	Depression as a barrier to self-efficacy

Codes	Categories	Themes
From the South	Reciprocal determinism	Environment influences thoughts, feelings, and behavior.
Eat cultural foods high in salt and sugar.	Behavioral capability	Environment influences thoughts, feelings, and behavior.
Food growing up was full of grease and salt.	Observational learning	Behavior and attitudes of the family influence the choice of protective action.
No gyms or parks nearby	Reciprocal determinism	Environment influences thoughts, feelings, and behavior.
Not enough information	Self-efficacy	Knowledge affects decision-making
Grocery store is a few miles away.	Reciprocal determinism	Environment influences thoughts, feelings, and behavior.
Liquor stores and churches	Reciprocal determinism	Environment influences thoughts, feelings, and behavior.
Do not exercise enough.	Behavioral capability	Behavioral factors are integral.
Eat way too much	Behavioral capability	Behavioral factors are integral.
Fried foods, cakes, chips, and sodas	Behavioral capability	Behavioral factors are integral.
Frozen pizzas	Behavioral capability	Behavioral factors are integral.
Junk	Behavioral capability	Behavioral factors are integral.
Fast food	Behavioral capability	Behavioral factors are integral.
Fried or greasy	Behavioral capability	Behavioral factors are integral.
Healthcare provider did not say anything.	Behavioral capability	Knowledge affects decision-making
He did not explain any of this.	Reciprocal determinism	Knowledge affects decision-making
None of my doctors said that.	Reciprocal determinism	Knowledge affects decision-making
My parents and	Observational learning	Behavior and attitudes of

Codes	Categories	Themes
grandparents can only guide me as far as they understand		the family influence the choice of protective action.
My parents only mentioned it when it was time for yearly checkups.	Observational learning	Behavior and attitudes of the family influence the choice of protective action.
Felt like he was just judging	Reciprocal determinism	Behavior and attitudes of health care providers influence the choice of protective action.
Challenged by a doctor	Reciprocal determinism	Knowledge affects decision-making
Doctors shared several strategies.	Reciprocal determinism	Knowledge affects decision-making
The doctor used a lot of big words.	Reciprocal determinism	Knowledge affects decision-making
Eat a lot when I am depressed.	Self-efficacy	Depression as a barrier to self-efficacy
Always go to my check-ins unless I am depressed.	Self-efficacy	Depression as a barrier to self-efficacy
It is hard to get out of bed I do not eat when I'm depressed	Self-efficacy	Depression as a barrier to self-efficacy

Evidence of Trustworthiness

In this qualitative phenomenological study, trustworthiness was promoted to increase readers' confidence in the results. Achieving trustworthiness facilitated decreasing the subjectivity associated with qualitative research and enhancing the results' accuracy (Ahmed, 2024). Adhering with eh principles of trustworthiness ensured that the qualitative study was conducted pre the standard practices (Ahmed, 2024; Stahl & King,

2020). Trustworthiness was promoted through credibility, transferability, dependability, and confirmability.

Credibility

Credibility relates to the findings' true value (Korstjens & Moser, 2018; Stahl & King, 2020). I promoted credibility by ensuring that data were collected up to the point of saturation. Data saturation in this study was achieved at the 15th participant, where no new information or themes emerged when data from the 16th respondent were assessed. Achieving data saturation supports credibility because it is an indicator that the results of African American millennial women were based on in-depth responses.

Transferability

Transferability is the degree to that the findings can be applied in other contexts, settings, or situations (Ahmed, 2024; Korstjens & Moser, 2018; Stahl & King, 2020). In this phenomenological qualitative study, I achieved transferability by providing detailed descriptions of participants, data collection procedures, and data analysis process. The descriptions can assist readers in determining whether the findings are applicable in their contexts.

Dependability

Dependability is related to the findings' stability and consistency (Ahmed, 2024; Stahl & King, 2020). I promoted the results' dependability by performing an audit rail. The audit trail enabled me to record all decisions associated with data collection and

analysis. Recording the data collection and analysis processes prompted the study's transparency.

Confirmability

Confirmability ensures that the findings are objective and not influenced by researcher bias to a significant extent (Ahmed, 2024; Korstjens & Moser, 2018; Stahl & King, 2020). I promoted confirmability using member-checking. Member-checking involved having participants read, revise, and confirm the results. I sent all 15 participants a summary of the findings. All respondents confirmed that the findings answered the research questions based on their experiences.

Results

The study results in this section are categorized according to the research questions and themes. Each theme is supported by verbatim responses by the respective African American millennial women. I used figures to visually represent the identified themes.

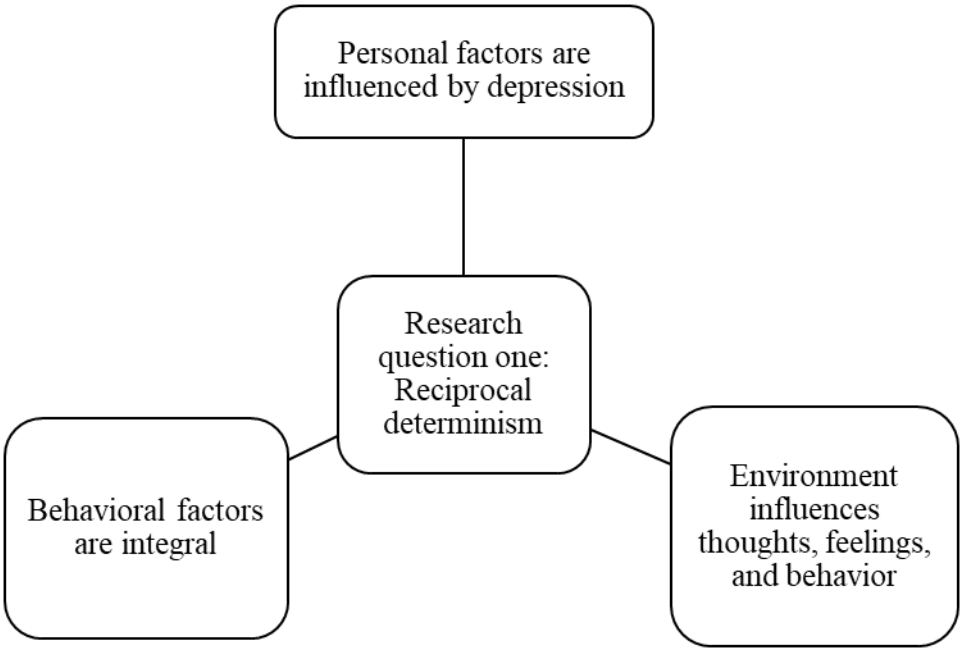
RQ1: Reciprocal Determinism

The first research question was *What role does reciprocal determinism play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?* The aim was to understand how African American millennial women's thoughts and surroundings influence their protective behaviors. Based on the IPA, I identified that personal factors are influenced by depression;

environment influences thoughts, feelings, and behavior; and behavioral factors are integral (see Figure 1).

Figure 1

Research Question One Themes



Personal Factors Influenced by Depression

The IPA results identify that personal factors that include feelings, thoughts, and mental well-being are impacted by depression. African American millennial women acknowledged that depression could decrease their motivation and energy to participate in protective behaviors. Depression results in a decreased likelihood of adhering to healthy lifestyle recommendations. For instance, CC indicated that "there is a park down the street from my house, but I do not go to it." The respondent continued by explaining "After a long day at work, I just want to come home, eat, and go to bed. Some days, my

depression is hitting me so hard, I can barely get up and go to work." Another respondent, CM added to the discussion by indicating that "I just do not have it in me [willingness to adhere to healthy lifestyle recommendations]. Depressed or not, I do not have the motivation. I do not feel like it. People think I am lazy."

African American millennial women expressed that experiencing depression decreases their energy and undermines their motivation to engage in self-care. Illustratively, SM explained experiencing hopelessness, which hinders her from participating in healthy behaviors such as exercise. The lack of exercise results in feelings of being overweight causing stigma around body size. Depression often manifests in negative self-perception, which makes it challenging for individuals to start habits such as exercising because the goals feel unattainable. SM explained her experience by indicating that

> I try to exercise, I do. Some days I am just too tired, or I just do not have the motivation. I know it is not enough, but I try occasionally. I think that I do not exercise more because I just feel like: What is the point? I am so overweight and feel so depressed sometimes, I just do not think it will help."

Similar to CC, CM, and SM, FU acknowledged that depression decreases her motivation to engage in protective behaviors, resulting in feelings of helplessness and hopelessness. The respondent explained how her thoughts and feelings affected her physical wellness. FU indicated that

> I have been diagnosed with seasonal but not high functioning depression. I felt helpless at times, but what helped is understanding the "why", which is my childhood trauma that comes with lifelong consequences. I am aware of the signs and symptoms.

Another respondent, NHM acknowledged that she only adheres to her medication because of her job. Otherwise, if it was up to her, she would not comply. She explained "If it were not for my job, I would not take the medication for depression. Some days, I think it is not working, and it makes me feel different."

Environment Influences Thoughts, Feelings, and Behavior

Based on the assessment, I identified that African American millennial women's thoughts, feelings, and behavior are influenced by the environment. The reported environmental factors are cultural and socioeconomic contexts that influence their decisions related to health behaviors. Cultural norms and values were reported as experiences that affect individuals' choices such as food. CC explained how being from the South influences her preference for fried food. She elaborated "I am from the South, so I fry something every Friday. I try to use turkey in my greens, but I still use pork at times." CC added, "My diet is made up of some sort of baked protein like chicken, fish, or turkey, a healthy grain, and some veggies." FU explained her experience with cultural factors that influenced her response to chronic illnesses. She indicated that "wellness was not treated like a priority in my home growing up, neighborhood or community. Both of my parents are diabetic and have hypertension, but they continued to eat cultural foods

high in salt and sugar." FU also reported the influence of culture by saying "growing up, I do not recall talking about depression because there was so much stigma." JA's experience is evidence of the impact of cultural experience because she said that:

> I grew up in the South, so there were no great examples of living a healthy lifestyle. The food was full of grease and salt, and no one truly worked out for the sake of health. My dad did go to the track sometimes to run, but he never included me in his exercise. If I did go with him, I would just play on the field. Depression was not discussed at all, even though my sister was dealing with a severe case of it and she still is. I just remember my dad yelling for her to come out of her room and yelling 'stop that' as if depression was something she could just turn off.

Another respondent NHM expressed that "coming from a military family, we did not talk about things like depression. We were also taught not to be open and honest about our health. If the army thought that you were unhealthy, that could jeopardize your promotions."

Socioeconomic status, specifically limited access to nutritious food, lack of safe spaces for exercise, and inadequate healthcare resources were reported as experiences that influenced the interviewed African American millennial women in engaging in cardiovascular disease protective behaviors. For instance, CC noted that the lack of sufficient healthcare resources is an issue. She said "there is not enough information in the community for us to understand what a healthy heart life is. The advertisements do not speak to the crowd." CM explained that her ability to engage in cardiovascular

disease protective behaviors is limited by her neighborhood, which is unsafe and lacks grocery stores. CM said “I seriously live in the hood so there are no gyms or parks nearby. We barely have sidewalks. Even if we did, nobody wants to be outside because it is dangerous.” In addition, CM explained that in her community, there lack of grocery stores. She said “the grocery store is a few miles away. I must drive there or plan to stop on my way home from work. My neighborhood is that typical stereotype with liquor stores and churches.” The lack of green spaces and sidewalks was reported to limit some of the interviewed African American millennial women’s ability to engage in cardiovascular disease protective behaviors.

Different from CM, CMc resides in a neighborhood with a gym, park, trails, and grocery store. Despite being too exhausted because of work, CMc acknowledged that the environment supports her in engaging in physical activities and consuming a healthy diet. She indicated that “my current apartment is in a beautiful walkable community and the vibrancy of the area motivates me to get active and do more for my health. My neighborhood has a grocery store in walking distance.” Similar to CMc, FU explained that “the neighborhood and community where I reside have the resources to maintain a heart-healthy life. My husband and I have been intentional about where we live so that our kids can also have access to healthy and fresh foods.” JA reported that

> We have sidewalks and a park with a track that I can walk to. The grocery store is a car ride away though. However, there are so many fast-food restaurants everywhere. It is hard to find something healthy and quick in my neighborhood.

Behavioral Factors are Integral

An IPA of participants' responses resulted in identifying that behavioral factors such as consuming a healthy diet and participating in regular physical activity are integral in CVD protective actions. Accordingly, engagement or the lack of influences overall wellness. For example, CC explained how she does not engage in physical activity. She explained her behavior "I do not exercise enough. I just do not always have the time. I have a treadmill, but I use it to hold my clothes more than I use it to exercise." CC added that she does not adhere to a healthy diet. She said, "I eat way too much, and it is always something bad like fried foods, cakes, chips, and sodas."

Similar to CC, CM experiences were related to non-adherence to physical exercise and diet. CM explained "I do not exercise at all, to be honest. At least I do not have a routine. I might go for a walk here or there when I am angry, but that is about it." CM explained that she is aware that the exercise she engages in is not enough. She expressed "I know that it is not enough, and I need to do more, but some days it is hard to just get out of bed, so exercising seems impossible." In addition to the lack of exercise, CM acknowledged that she does not eat a healthy diet because of the lack of time to cook. She said that

> I honestly do not have time to cook healthy meals and healthy food costs too much at the grocery store. I do receive food stamps, but I have three children that I must feed. They don't want that type of stuff anyway. I usually grab frozen

> pizzas or something quick. My pantry is full of junk because it is cheaper and more convenient.

FU noted that she had not been exercising, mainly because of the weather. She said “as of lately I have not been exercising that often. Now that it is getting warmer, I plan to take walks in my neighborhood and join a local gym.” SB noted the challenges that hinder exercising in physical activity. She expressed “I try to walk every day. Time restrictions from work and family make it hard to exercise. During the pandemic, I had to walk all the time, but after returning to work, it has been hard.” In addition to time constraints, distance was reported as an issue. SB noted that “the gym is too far and takes too much effort to go.” GH explained her partial medication adherence and participation in physical exercise. Notably, she does not adhere to a healthy diet. Her response was that

> I am taking medicine for both my cardiovascular disease and my depression. I take my heart medicine as prescribed but sometimes do not take my medicine for depression consistently. I just feel like it is not always working and want to try a more natural path. I try to exercise at least 3 times per week. I do not think that it is enough because I should be exercising every day, at least that is what the doctor says. I eat too much fast food which is usually fried or greasy because I do not have a lot of time after work.

Different from CC and CM, NHM explained that she engages in physical exercise. Her response was “I exercise every day. I must stay in good physical health, so I

am up every morning exercising." Consistent with NHM, CMc explained that she adheres to a healthy diet, which enabled her to lose weight, despite still being overweight.

> I was however able to alter my diet, lost a few pounds as a result, and have been able to mostly keep high cholesterol at bay over the years since. I do not regularly check my levels, but this is still an ongoing echoing fear in the back of my mind about my mental health. In addition, I have been told by several doctors that I am overweight at the age of 38, 5'7 tall, and just over 200 lbs. This concerns me because my weight at my age is the same as my family and females in my direct bloodline. I do not feel unhealthy, but I continue to strive, I feel, for unrealistic standards in my baseline weight.

RQ2: Behavioral Capability

The second research question was *What role does behavioral capability play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when deciding as it pertains to cardiovascular disease protective behaviors?* The aim of the research question was to understand the knowledge and skills necessary for performing a behavior. The interviewed African American millennial women acknowledged that health literacy has a significant role in promoting informed decision-making.

Knowledge Affects Decision Making

Assessing participants' responses resulted in understanding that health literacy has a core role in informed decision-making concerning cardiovascular disease protective

behaviors. Low health literacy hinders engaging in preventative behaviors. For instance, CC indicated that they lacked adequate knowledge, an issue that she attributes to her provider. She explained that “my healthcare provider did not say anything, but you are fat, and you need to stop eating soul food. If you stop eating, then you will be fine.” CC added by expressing that she did not receive enough information from her doctor. She said “he did not explain any of this to me. Even when I received your invitation, I had to look up what cardiovascular disease was.” The lack of knowledge of cardiovascular disease and depression hinders individuals from engaging in preventive initiatives. Similar to CC, CM lacked knowledge, which was evident in her reported experience:

> None of my doctors said that my blood pressure and weight is a cardiovascular disease risk factor. I did not even truly understand what cardiovascular disease was until I Googled it for this study. I remember my doctor saying that I needed to lose weight and eat better, but I did not get a real explanation that it would mess with my heart.

The interviewed African American millennial women were unaware of preventative measures for heart disease outside of diet and exercise. EJ responded that “Outside of a program called Nifty Nutrition, I did not learn much about cardiovascular disease.” TB elaborated on her knowledge deficiency by indicating that:

> I did not have enough information about hypertension, and I thought it was a death sentence. No one spoke about it. The word I would always here is “heart attack” and you can die from it. However, there was no information on how to

prevent it. At the time, I did not know the symptoms of depression and assumed it was something felt when you are sad or say when you and your boyfriend broke up.

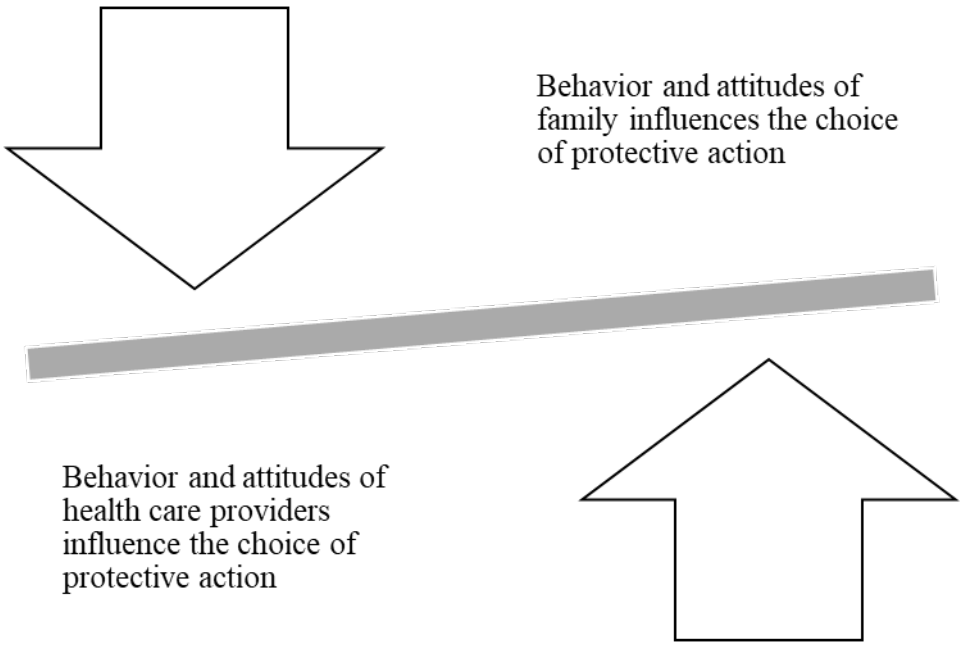
Contrastingly, FU explained her intentionality with cardiovascular disease protective behaviors because of her understanding of the illness. She indicated that "I have been intentional about improving my health unlike when we were growing up, we were not aware of the risk factors associated with the unhealthy foods that we consumed, and did not talk about depression in the household."

RQ3: Observational Learning

The third research question was *What role does observational learning play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?* The goal of asking the research question was to understand how others influence African American millennial women's cardiovascular disease protective behaviors. The identified themes are (a) the behavior and attitudes of family influence the choice of protective action and (b) the behavior and attitudes of health care providers influence the choice of protective action (see Figure 2).

Figure 2

Research Question Three Themes



Behavior and Attitudes of Family Influence the Choice of Protective Action

Based on the IPA, I identified that family members and community influenced African American millennial women's choice of cardiovascular disease protective actions. Family was reported to have a positive and negative influence. Specifically, family casual perceptions about cardiovascular disease and depression influenced participants' behavior and attitudes. Illustratively, CC said "my parents and grandparents can only guide me as far as they understand. If I had the right tools and understanding I would be better off." CC added, "my dad would go to the doctor, but if the doctor says something he does not like, he zones out." Another respondent EJ explained "I suffered

from depression as a teenager but back then, it was not something that our community saw as mental health. It was more so looked at as a mood." GH's experience was that:

> We did not talk a lot about cardiovascular disease growing up. My parents only mentioned it when it was time for yearly checkups. I think they were scared because, in the back of their minds, they knew that my condition was life-threatening. We did not talk about depression even though I'm pretty sure my mom suffered from it as well. I've always suffered from depression but never felt like I could talk about it at home with my parents. I just felt like I was on my own with both cardiovascular disease and depression.

Similar to GH, CMc's experience was that:

> Growing up, I was not privy to any adult or adolescent conversations about depression and was not fully aware of the depth of it until well into my college years. As I grew up to be an adult, I can reflect and vividly recall witnessing family members and parents in moments of depression as well as myself, but I couldn't recognize it in real-time while growing up. I do wish someone had explained the symptoms and effects to me much earlier in life.

Behavior and Attitudes of Health Care Providers Influence the Choice of Protective Action

African American millennial women indicated that their health care providers influenced behavior and attitudes related to their choice of proactive action. Healthcare providers had positive and negative influences on African American millennial women.

For instance, CM explained the positive and negative influence of her doctor. She indicated that “the doctor told me I need to watch my diet, cut back the carbs, and exercise more.” Contrastingly, she indicated that:

> I do not want to hear about how overweight I am and how I need to change a lot of things. I am trying to change, but when you do not have access to a gym or it is not safe to walk around your neighborhood, what am I supposed to do about exercise? I tried to tell my doctor about this once, but I felt like he was just judging me like this ghetto black girl. I just do not always feel comfortable talking to my doctor about my struggles because I feel like I am being judged.

CMc’s response to the influence of healthcare providers was:

> In 2008, during graduate school, I was told I had a high cholesterol spike and was challenged by a doctor to bring it down with my diet or otherwise start high cholesterol medicines. I was warned that after starting these, I’d never be able to get off the medication. I was terrified by the thought of taking medicine forever. I was however able to alter my diet, lost a few pounds as a result, and have been able to mostly keep high cholesterol at bay over the years since.

FU explained the positive influence of her doctor on her behavior and attitude. She said “my doctor shared several strategies for healing the body from the long-term effects of toxic stress. These include practicing mindfulness, engaging in regular exercise, nurturing healthy relationships, prioritizing quality sleep, and adopting a balanced diet.”

Different from FU, GH had a negative experience with her doctor, which hindered her behavior and attitude towards protective action. She indicated that

> My doctor explained to me what my condition meant, but not about any other cardiovascular diseases. I felt like my doctor used a lot of big words, and did not break it down in a way that I truly understood the severity of it. I just feel like I am saying the same thing, they are not really listening, and then I hear the same thing. Eat better, exercise more, and have less stress. I do not think they truly understand how hard that can be sometimes. I have canceled doctors' appointments just because I did not want to go through the same old same old.

RQ4: Self-Efficacy

The fourth research question was *What role does self-efficacy play on African American millennial women with cardiovascular disease, cardiovascular disease risk factors, and depression when making decisions as it pertains to cardiovascular disease protective behaviors?* The aim of the research question was to understand the African American millennial women's belief in their ability to engage in cardiovascular disease protective behaviors. Self-efficacy influences health behavior, and in this study, it was identified that the presence of depression is a significant barrier.

Depression as a Barrier to Self-Efficacy

The presence of depression among African American millennial women results in feelings of hopelessness, low self-worth, and diminished belief in their ability to promote their wellness. CC responded, "I eat a lot when I am depressed, and it is never anything

good for me." The respondent added how depression adversely affects her adherence to appointments. She said, "I always go to my check-ins unless I am depressed. I will cancel an appointment if I'm depressed." Similar to CC, CM reported that "I eat a whole lot when I am depressed. It does not matter if it is healthy or junk, I am going to eat it." According to GH, "Some days it is hard to get out of bed and when I do, I use all my energy into work and family, and I do not have any energy left for exercise or eating healthy." NMH said "I do not eat when I'm depressed. I forget to eat all day until someone points it out." JA added to the discussion by indicating that "I have not been exercising at all. I have a hard time with depression during the winter months, so I just crash after I get home from work and then take care of the kids." Another consequence of depression is JA rescheduling her appointments. She said, "Sometimes I reschedule an appointment for further out, especially when I am feeling depressed already." In essence, depression results in African American millennial women eating unhealthy and not adhering to the recommended physical activities. SM acknowledged that "if I was less depressed then I would be more motivated to make healthier choices."

Summary

It was identified that personal factors are influenced by depression; environment influences thoughts, feelings, and behavior; and behavioral factors are integral illustrating the role of reciprocal determinism on African American millennial women cardiovascular disease protective behaviors. Knowledge affects decision making, which is an indicator of the role behavioral capability has in African American millennial women. Behavior

and attitudes of family and healthcare providers influence observational learning among African American millennial women. Depression was reported as a barrier to self-efficacy relating to making decisions about cardiovascular disease protective behavior. In the subsequent section, the application to professional practice and implications for social change is included.

Section 4: Application to Professional Practice and Implications for Social Change

Overview

The purpose of this qualitative study was to gain a more in-depth understanding of how the comorbidity of cardiovascular disease and depression uniquely present in young African American women, how these two diseases influence cardiovascular health protective factors, and how components of the SCT contribute to their cardiovascular health outcomes. An IPA of the interview responses collected resulted in the identification of seven themes that address the problem statement. The themes are (a) personal factors are influenced by depression; (b) environment influences thoughts, feelings, and behavior; (c) behavioral factors are integral; (d) knowledge affects decision making; (e) behavior and attitudes of family influences the choice of protective action; (f) behavior and attitudes of health care providers influence the choice of protective action; and (g) depression as a barrier to self-efficacy. The following sections contain a discussion of the application of the findings to professional practice and implications for social change.

Interpretation of Findings

In this study, assessing participants' responses resulted in identifying that reciprocal determinism has a role in African American millennial women when making decisions as it pertains to cardiovascular disease protective behaviors. The first role was that personal factors are influenced by depression. The women reported that depression influences their feelings, thoughts, and mental health. Depression was reported to result

in decreased motivation and energy among African American millennial women hindering their participation in preventive behaviors. The findings are consistent with the discussion in the published literature that depression decreases the likelihood of patients adhering to medication, engaging in regular physical activity, and complying with a healthy diet (Rad et al., 2023).

The second role was that the environment influences thoughts, feelings, and behavior. African American millennial women's environmental factors, specifically their cultural and socioeconomic contexts influence their decisions related to health behaviors. The cultural norms reported in this study were eating fried food that was high in salt, and perception of depression as just a mood. The socio-economic factors included limited access to nutritious food, inadequate healthcare information, and lack of safe spaces for exercise. In the published literature, cultural norms have been identified to influence individuals' understanding of health and appropriate health behaviors (Beattie et al., 2024; Osokpo & Riegel, 2021). Similarly, socioeconomic factors have been identified as barriers to engaging in healthy behaviors (Borkowski et al., 2024). The results add to the understanding of how cultural and socio-economic factors influence African American millennial women's health behaviors and outcomes.

The third role was that African American millennial women reported behavioral factors as integral. Some African American millennial women indicated that they adhered to healthy diets and engaged in regular physical activity, while others indicated that they did not adhere to the practice. The findings are similar to those in published literature

where researchers have supported that behavioral factors healthy diets and regular physical activities have a role in cardiovascular disease protective behaviors (Park & Oh, 2021).

The findings advance the SCT by supporting the role of reciprocal determinism, specifically depression, environmental influences, and behavior on health behaviors among African American millennial women. Specifically, the results add an understanding that cultural norms and socioeconomic factors are environmental influences for cardiovascular disease protective behaviors. The results support the relevance of SCT as a framework for understanding the socioeconomic and behavioral factors that influence adopting preventive health behaviors among African American millennial women.

The role of behavioral capability, specifically health literacy has a role in African American millennial women engaging in preventive health behaviors. The results of this qualitative study were that knowledge about cardiovascular disease and depression affects African American millennial women's decision making. Specifically, the interviewed African American millennial women indicated that they had low health literacy, which prevented them from making informed decisions on cardiovascular disease protective behaviors. In the published literature, a lack of health literacy has been attributed to be a barrier to complying with the recommended healthcare interventions (Ebong & Breathett, 2020; Taylor et al., 2024). The results advance the SCT by

supporting that knowledge, a component of behavioral capability influences the African American millennial women's decision-making on preventive health behaviors.

Observational learning, specifically behavior and attitudes of family and health care providers influences the choice of protective action among the interviewed African American millennial women. Family and health care providers were reported to have a positive and negative influence on African American millennial women when making decisions as it pertains to cardiovascular disease protective behaviors. Consistent with published literature, family and healthcare providers have been supported to influence health behaviors (Ebong & Breathett, 2020; Springfield et al., 2020). Positive interaction with healthcare providers, clear communication, and trust in the professionals, result in greater adherence to preventive measures. Conversely, African American millennial women reported that the lack of therapeutic relationships with the providers and deficit in personalized care hinders their adherence to cardiovascular protective actions. Findings in this qualitative study advance the SCT by supporting that family and healthcare providers are influential models on African American millennial women's adherence to protective actions.

Based on the research findings in this study, depression was reported to hinder African American millennial women from engaging in self-efficacy. Participants indicated that depression resulted in a loss of appetite, in-adherence to physical activity, and consuming unhealthy diets. Consistent with published evidence, depression adversely impacts self-efficacy hindering adherence to healthy behaviors (Rad et al., 2023). The

findings are consistent with SCT because the loss of appetite, in-adherence to physical activity, and consuming unhealthy diets hinder self-efficacy, which is needed for individuals to successfully engage in protective actions.

Limitations of the Study

A limitation is that there was only one data source in the study. In this study, data were collected using interviews, where African American millennial women answered semi-structured questions. Although interviews provided an in-depth understanding of the collected data, triangulation was not achieved. Data triangulation is achieved when there are multiple data sources in a study (Schlunegger et al., 2024; Valencia, 2022). The lack of triangulation is a limitation because it hindered gaining an understanding of the data from different perspectives.

Another limitation of the study was that I focused on any cardiovascular disease or cardiovascular disease risk factor and any form of depression. This made the research broad and limited around if specific cardiovascular diseases, risk factors, or types of depression have more of an impact on African American millennials with these comorbidities.

Recommendations

The first recommendation for future researchers is for them to ensure data triangulation in their study. Data triangulation can promote gaining an in-depth understanding of the topic of study (Schlunegger et al., 2024; Valencia, 2022). Triangulation also supports the findings' trustworthiness because the findings are from

different perspectives. When future researchers ensure data triangulation, it will improve the findings' confirmability.

The second recommendation is for future research to conduct quantitative studies assessing the impact of the identified SCT-related factors on cardiovascular disease protective behaviors. The study can promote gaining quantifiable insights into the factors that impact cardiovascular disease protective behaviors among African American millennial women. The study can assist in determining whether the reported factors in the qualitative study have a significant impact on cardiovascular disease protective behaviors.

A third recommendation is for future researchers to conduct qualitative studies from the perspective of healthcare providers. In the published literature, studies have mainly been conducted from the perspective of the patients (Beattie et al., 2024; Osokpo & Riegel, 2021). As such, conducting a qualitative study from healthcare professionals' perspectives could offer more insights providing an understanding of the role of SCT-related factors in health behaviors. The healthcare professionals' perspectives could offer more insights into the manner African American millennial women's experiences influence their cardiovascular disease-related behaviors.

Implications

The findings have implications for positive social change. The focus on African American millennial women added a generational perspective that increased an understanding of cardiovascular disease protective behaviors. On an individual level, the

results increase awareness about the influence of depression, cultural concepts, and socioeconomic factors on African American millennial women's cardiovascular health decisions (Beattie et al., 2024; Osokpo & Riegel, 2021). The findings can empower African American millennial women to acknowledge and proactively address the influences early in their life. For example, promoting African American millennial women's health literacy can help them in making informed choices to promote self-efficiency.

On a family level, members need to be aware of the impact of cultural norms on their healthy behaviors. In the published literature, the need to recognize the influence of culture on health behaviors has been emphasized to influence family members' behaviors and attitudes toward health behavior (Beattie et al., 2024; Osokpo & Riegel, 2021). Families need to have open discussions about mental health, specifically depression to promote decreasing stigma and foster support.

The implication for health organizations and professionals is for them to deliver culturally sensitive care. The introduction of patient-centered interventions that address African American millennial women's environmental and socioeconomic challenges can assist in addressing the population's negative experience with care. Also, culturally sensitive care can be delivered in a manner that improves healthcare professionals' health literacy, a core factor that influences self-efficacy. Social cognitive theory-based interventions can improve health outcomes among patients with cardiovascular illnesses (Liu et al., 2025). The establishment of therapeutic relationships between healthcare

providers and African American millennial women is essential in promoting trust and supporting adherence to the recommended healthy behavioral practices.

Plans should be made to increase knowledge to promote observational learning, increase behavioral skills, and increase knowledge to foster nutritional behaviors, by using appropriate approaches for offering timely and appropriate rewards and punishments, fostering collective efficacy. (Rad et al., 2024). Policies should be introduced to address any systemic inequities that cause socioeconomic barriers experienced by African American millennial women. The policies can promote access to nutritious food, safe environments for exercise, and equitable access to healthcare and information. The policies can support public health campaigns that challenge negative cultural norms related to diet and the stigma around depression.

A recommendation for practice is for healthcare providers to regularly screen for depression among African American millennial women as part of cardiovascular risk assessment. Another recommendation is for culturally sensitive interventions to be introduced that address issues such as consuming deep-fried foods. An additional practice recommendation is for healthcare providers to prioritize developing trust and rapport with African American millennial women through active listening, concise communication, and personalized care.

The methodological implications are that a qualitative approach and phenomenological design are suitable for understanding experiences. The use of a qualitative methodology and phenomenological design supported the use of semi-

structured interviews to collect data (Alhazmi & Kaufmann, 2022; Muhammad et al., 2023). The implication is that the findings in this study support interviews as a suitable source of qualitative data. Also, a qualitative methodology is appropriate for collecting in-depth data on participants' experiences, which promotes answering interview questions.

Conclusions

The study prompted an understanding that reciprocal determinism, behavioral capability, observational learning, and self-efficiency influence African American millennial women's experiences adhering to recommended health behaviors for promoting cardiovascular health. Understanding the influences of culture, depression, health literacy, and socioeconomic factors is essential in effectively promoting cardiovascular health among African American millennial women. Interventions of African American millennial women need to be holistic and culturally relevant to address the individual and systemic factors that hinder cardiovascular health protective factors.

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