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Food and Income Insecurity and Academic Progress Among African American College Students During the COVID-19 Pandemic

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This is to certify that the doctoral dissertation by

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Abstract

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MA, Norfolk State University, 1994

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The impact of food insecurity on minority college students is an ongoing concern that reached new importance during the COVID-19 pandemic. Although researchers have examined food insecurity among college students during COVID-19, they had not explored the role of coping responses among African American college students during the onset of the pandemic. The purpose of this study was to investigate coping responses as mediators between situational stressors (students' experiences of food insecurity, residential changes, and changes in employment) and academic progress among African American college students during COVID-19. The instruments used for this study were the Brief COPE Inventory, Global Food Insecurity Experience Scale, and the Academic Success Inventory for College Students. A probability sample of 106 African American college students completed an online survey in February and March of 2023. A multiple regression analysis was undertaken to evaluate coping responses as a possible mediator between food insecurity and academic progress during COVID. Higher food insecurity predicted reduced academic progress, but this was mitigated when the students reported more positive coping responses. This study has implications for positive social change because it can alert college administrators and policy makers to the importance of providing emotional and other types of support for African American college students when faced with these unforeseen threats to basic security.

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Chapter 1: Introduction to the Study

The recent increase in food insecurity in the United States has led to its emergence as a leading public health concern (Knol et al., 2017; Payne-Sturges et al., 2018). The negative consequences of food insecurity are well documented (Gundersen & Ziliak, 2018; Knol et al., 2017). Food insecurity is a risk factor for chronic diseases and health problems. Food insecurity is associated with diabetes and cardiovascular disease among African Americans, for instance (Bruening et al., 2017). Food-insecure people have issues managing chronic health problems, and following dietary protocol is challenging (Payne-Sturges et al., 2018). Some groups are more vulnerable than others toy experiencing food insecurity. Research shows that ethnic groups such as African Americans, Native Americans, Latinos, single-parent households, and those residing in rural communities in the United States have higher rates of food insecurity (Byker et al., 2020; Myers & Painter, 2017; Odoms-Young, 2018). African American households face food insecurity twice the rates of White families and non-Hispanics (Odoms-Young, 2018). High food insecurity, poverty, and the wealth gap are a direct result of systemic racial and gender discrimination in several aspects of American life (Frongillo et al., 2019; Odoms-Young, 2018).

Disparities in rates of food insecurity among U.S. college students, and the adverse impacts on academic performance and other outcomes, are also a concern. Thompson et al. (2018) found that some 25% of the students at a California college campus had experienced food insecurity during the past 12 months. They and other researchers have found that food insecurity is 1.5 times higher among African American and Hispanic college than among White and Asian students (Bruening et al., 2017). The higher rates of food insecurity among African American and Hispanic college students are concerning because of the potential adverse impacts on

academic performance and career prospects. For example, researchers studying food insecurity among college students have found negative impacts on academic success and later career and economic opportunities (Reagan, 2020). Furthermore, they have noted an association with poor academic performance and symptoms of anxiety and depression (Knol et al., 2018) and with academic performance, retention, and graduation rates (Payne-Sturges et al., 2018). Many African American graduate students experience food insecurity as well (Bruening et al., 2017; Payne-Sturges et al., 2018; Thompson et al., 2018).

Data are scarce regarding food security for students attending historically Black colleges and universities (HBCUs; Payne-Sturges et al., 2018; Thompson et al., 2018). Further, much less is known about the focus of this study: the impact of food insecurity and academic success among Black college students during the COVID-19 pandemic. In this chapter, I discuss the background of the problem and state the research problem and purpose. This chapter also includes the research question (RQ) and hypotheses; definitions of key terms; and discussion of the theoretical framework, nature of the study, assumptions, scope and delimitations, and limitations. A summary will conclude the chapter. This study will cause a positive change via bringing awareness to enhance the social and economic conditions of marginalized students.

Background

Food insecurity can be a major deterrent to academic progress and success. The United States Department of Agriculture defined food insecurity as a lack of consistent access to enough food for an active and healthy life (USDA, 2019). According to Meyers and Painter (2017), food insecurity is a need for sufficient food in quantity and quality. Understanding the food insecurity issue among college students is essential because lack of sufficient food could negatively affect

their economic opportunities (Reagan, 2020). Furthermore, Mialki et al. (2021), in their study on food insecurity and COVID-19, discovered an association between college students' academic performance, sleep quality, stress level, disordered eating behaviors, higher body mass index, less physical activity, inadequate dietary intake, and poor psychosocial health. College students had higher rates of food insecurity than non-student households before COVID (Bruening et al., 2016; Owens et al., 2020). However, according to Owens et al.'s (2020) scholarly review, because of COVID-19 and the rise in unemployment, food insecurity has become more prevalent among college students throughout the United States.

Previous researchers who have studied food insecurity have discovered disproportionately higher rates among racial/ethnic minority groups (Morales et al., 2020). When students left campus housing after their campuses closed, they left behind resources such as food banks, school cafeterias, and jobs (Laska et al., 2020). Many students returned to their family homes or found another temporary shelter (Owens et al., 2020). These changes during the pandemic threatened the already higher risks of housing and food insecurity among racial/ethnic college students (Owens et al., 2020). In addition, financial stressors were compounded among many ethnic minority college students who worked in service industries (restaurants, bars, and health care) that had been hit hardest with unemployment during the COVID-19 pandemic (Owens et al., 2020). This loss of monetary income also furthered their food insecurity (Lederer et al., 2021). In addition, structural racism worsened the inequalities experienced by African Americans during the COVID-19 pandemic (Lederer et al., 2021).

Previous researchers who studied food insecurity among college students noted potentially adverse impacts on students' academic potential (Cady, 2014; Maroto et al., 2014;

Van Woerden et al., 2018). Bruening et al. (2016) found that food-insecure first-year students were significantly less likely to eat, consume home-cooked meals, have off-campus eating habits, or receive food from parents. Food-insecure students were less likely to re-enroll in college than secure-food students (Van Woerden et al., 2018).

Maroto et al. (2014) investigated the prevalence of food insecurity among two community colleges in Maryland. One half of the participants were from an affluent suburban area, and the other half were from a low-income urban area. Study results indicated that 56% of the sample population classified as at-risk for food insecurity had lower grade point averages (GPAs; Maroto et al., 2014). The students at risk for food insecurity were those who were single parents, lived alone, and identified as African American or multiracial.

Although research has demonstrated that the burden of household food insecurity is disproportionately higher among racial/ethnic minority groups, no peer-reviewed studies have systematically examined racial/ethnic disparities during the COVID-19 pandemic among college students (Khanijahani, et. al, 2021; Morales et al., 2020). Meyers (2020) found that food insecurity is more prevalent in racial/ethnic minorities and argued that additional studies should be conducted to consider health disparities associated with race/ethnicity to explain the association between food insecurity and psychological distress.

Food insecurity is a real problem in every advanced capitalistic nation (Long et al., 2020). Many underprivileged individuals in capitalistic countries struggle to eat healthily (Long et al., 2020). Long et al. (2020) provided a broad overview of food insecurity, including definitions, measurements, and its impact on health. According to Long et al., although there is extensive current literature on food insecurity, more research is needed to address gaps related to

significant events, coping responses, and disadvantaged populations struggling with food insecurity.

Problem Statement

The problem of food insecurity and its impact on college students, especially minorities, is not new. However, it reached new importance during the COVID-19 pandemic. Although other researchers have examined food insecurity among college students during the pandemic, they have not yet explored coping responses that mediate student situational stressors (changes in food insecurity, housing, and employment) relative to academic progress, based on my review of the literature. The research problem addressed in this study was a lack of knowledge on whether coping responses mediate a relationship between situational stressors (students' experiences with food insecurity, changes in residence, and employment) and African American college students' academic progress during the onset of the COVID pandemic.

Purpose of the Study

There are many studies on food insecurity. It has become a real problem throughout many nations. The problem of food insecurity was so overwhelming that the Voices of Hunger developed a worldwide plan to combat the issue. The purpose of this quantitative study was to investigate coping responses as a mediator between COVID-19-related situational stressors for African American college students (e.g., students' experiences of food insecurity, residential changes, and employment) and their academic progress since the onset of the COVID pandemic.

Research Question and Hypotheses

I developed the RQ, and hypotheses based on reviews of the existing literature on the COVID-19 pandemic, food insecurity, and African American college students' academic

progress. The situational predictors of this study were stressors related to the impact of the COVID-19 pandemic relative to African American students' experiences with food insecurity, changes in living arrangements, and the loss of employment. I explored whether students' coping responses mediated their academic progress since the onset of the COVID-19 pandemic. The RQ and hypotheses were as follows:

RQ: Do coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19?

H_0: Coping responses do not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

H_1: Coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

Theoretical Foundation

In 1984 Lazarus and Folkman proposed a theory featuring transactional stress characteristics. This theory of stress and coping describes how transactions occur between an individual and their environment. Lazarus and Folkman described coping as the "cognitive and behavioral efforts" (p. 141) a person employs to manage stress. Lazarus and Folkman divided the stress and coping theory into physiological, psychological, and social responses. During the interactions, personal expectations about the relationships between individuals and their environments become resourceful or non-resourceful. In addition, individuals perceive the environment as stressful or non-stressful. According to Lazarus and Folkman, stress is always present when an individual's perception of the environment includes non-coping situations.

Key concepts of Lazarus and Folkman's (1984) coping and stress theory are cognitive appraisal and coping. Cognitive appraisal is a method whereby the classification of expectations and unique features are perceptions and well-being. Therefore, the mental evaluation of life is essential when coping with stressful situations. Cognitive appraisal involves classifying encounters and various aspects of stressful situations in terms of significance (Lazarus & Folkman, 1984, p. 31). During the cognitive appraisal, individuals use personal interpretations to assess situations as stressful or non-stressful. Nevertheless, coping strategies depend on situational appraisal.

Lazarus and Folkman (1984) emphasized primary and secondary appraisal of the stress and coping theory elements. Primary appraisal occurs when individuals evaluate situations for significance relative to personal preference and moral norms. During the primary appraisal, individuals will seek answers to the meaning of risk relative to their well-being. The individual will evaluate the situation by asking themselves whether the risk will be positive or negative. There is also an evaluation of whether the person can overcome the risk. The secondary appraisal is a normal cognitive process that occurs as individuals figure out how to cope with stressful events (Dewe, 1991). During the secondary appraisal, there is an evaluation of coping strategies, resources, and solutions regarding the specific situation (Lazarus & Folkman, 1984). Coping resources evaluate healthiness, energy, support, and accountability. Situational accountability becomes attributed to oneself, another person, or groups during the coping process. Lazarus and Folkman assessment regarding how individuals appraise their stressors during stressful events is important because this study seek to explore African American college students dealt with the stress of the pandemic.

Nature of the Study

I used a quantitative, correlational design to address the RQ and hypotheses in this study. Because a correlational study cannot substantiate that one variable causes a change in another (Lappe, 2000), the study did not involve an examination of a cause-and-effect relationship between the study variables. In addition, the internal validity in a correlational study is less robust when compared to an experimental study (Lappe, 2000).

My design is like that used by Long et al. (2020) research on food insecurity among disadvantaged individuals in an advanced capitalistic society and their struggle with eating healthy after a traumatic event. Therefore, I attempt to examine food insecurity and coping strategies among African American college students during COVID-19. As part of this research design, I collected data from primary sources. A demographic questionnaire was used to identify students who fit the inclusion criteria. Participants completed a questionnaire to examine their coping responses relative to COVID-19 stressors, including food insecurity, and how they coped with the changes in residence and income during the traumatic event. The Brief COPE Inventory (Carver, 1997) measured participants' coping strategies. In addition, participants self-reported on indices of academic progress/performance (e.g., whether they continued to attend school during COVID; if so, the number of courses they took before and during the pandemic; and their GPA before and during the COVID pandemic). I performed a multiple regression analysis to test the role of coping responses as a possible mediator between food insecurity and academic progress during the COVID pandemic. The multiple linear regression also met the assumption for a continuous dependent variable (academic progress/performance). The Global Food and Insecurity Scale was used to measure student's experiences with food insecurity during the

pandemic and the Academic Success Inventory for College Students was used to access students' academic progress during the pandemic.

Definitions

Academic Progress: Academic progress is a benchmark for comparing individual student assessment performance scores from one year to another (Academic achievement refers to the number of students, on average, who are performing at expected levels (Reeve et al., 2020).

African American: An African American is a person of African and American descent that predominantly have dark pigmentation relative to skin color and culture (Lynn, 2006).

Coping: Coping is the behavioral and cognitive effort to understand, minimize, and endure the outer and inner demands that one may experience because of a stressful situation (Lazarus & Folkman, 1984).

Coping Response: Coping responses are behaviors, thoughts, and emotions that individuals use to positive reframe or adjust to changes in their lives (Carver et al., 1997). Positive reframing involves thinking positively in hostile and challenging situations (Carver et al., 1997).

COVID-19: Covid-19 is a disease that causes upper respiratory tract infections and is capable of spreading through person-to-person contact (Sterpetti, 2020).

Food Insecurity: Food insecurity is the absence of or the lack of consistent access to enough food necessary for an active and healthy life in a socially acceptable manner (Gundersen & Ziliak, 2018).

Assumptions

There were two main assumptions regarding this research study: It was assumed that study participants will provide honest and accurate responses to the best of their ability. Therefore, it was necessary to inform each participant that their information will remain anonymous and confidential. The informed consent also explained that participation was voluntary, and they could opt out or discontinue at any time. During the data collection phase, there was no physical contact between the researcher and the participants. The purpose of no contact was to prevent the researcher from influencing the participant's responses during the survey. Clear and concise instructions was given to lessen the probability of confusion and misunderstanding of each question. These assumptions were necessary because the questionnaires are self-reported and based solely on the participants cooperation.

Scope and Delimitations

In this study I explored whether the coping responses of African American college students mediated a relationship between COVID-related situational stressors (students' experiences of food insecurity, changes in residence, and a loss in employment) affected their academic progress during COVID-19. The study addressed gaps in the scholarly literature regarding coping responses among disadvantaged and marginalized students struggling with food insecurity during a traumatic event.

The study included various validation measures to enhance the validity of the self-reported data. The Food Insecurity Experience Scale was used to measure food insecurity. The Brief Cope Inventory was used to measure coping responses and the Academic Success Inventory of College Students was used to measure academic performance. In addition, all study

results were compared with existing literature to establish consistency and reliability. The findings were subjected to rigorous statistical analyses to detect potential discrepancies or outliers caused by self-reported data. This study was normed on African American college students only; therefore, the external validity of cannot be generalized to other ethnic groups.

Limitations

Before conducting the study, identifying, and addressing potential limitations to ensure the validity and reliability of the research findings was very important. The first limitation concerned the use of self-reported data received from the participants. Studies relying on self-reported data have an increased risk of inaccuracies caused by the participants' memory recall or social desirability bias. Therefore, participants were informed about the importance of providing accurate and honest responses. The participants were assured that all information will be kept confidential and anonymous. The study questions were pre-tested to ensure that all participants understood them and had a desire to respond.

Significance

My study is significant because a review of the scholarly literature revealed that researchers are only beginning to explore the relationships between food insecurity, COVID-19, and academic performance among college students (Mialki et al., 2021; Owens et al., 2020). Lederer et al. (2021), study on college students in the United States, discovered a distinct population facing significant challenges due to the COVID-19 pandemic. Current research has demonstrated that the burden of household food insecurity is disproportionately high among racial/ethnic minority groups. However, no peer-reviewed studies have systematically examined racial/ethnic disparities in household food insecurity during the COVID-19 pandemic, according

to my review of the literature (see also Morales et al., 2020). Therefore, there is little knowledge about food insecurity and coping strategies among minority college students during COVID-19. My study addressed gaps in the literature concerning Black college students' experiences of food insecurity relative to academic progress, changes in living arrangements, leaving campus, and a loss of employment/income caused by COVID-19.

Summary

In this research study, I addressed gaps in the literature regarding food insecurity and its effect on African American college students' coping responses during the COVID-19 pandemic. I explored coping responses as a mediator among African American college students experiencing food insecurity, living arrangements, and changes in employment/income during the COVID-19 traumatic event (Long et al., 2020). The effects of COVID-19-related food insecurity on racial/ethnic minority college students are unknown. This study is significant because it addressed gaps in the literature concerning coping responses used by African American college students experiencing food insecurity caused by situational stressors such as changes in living arrangements and loss of income during COVID-19. In Chapter 2, I review literature on food insecurity among African American college students and situational factors such as changes in income, residence, relative to student's academic progress. Chapter 3 includes the detailed methodology of the study. In Chapter 4, I present the survey results. Finally, in Chapter 5 I discuss the study results and offer recommendations for future research.

Chapter 2: Literature Review

Introduction

Although food insecurity is an important research topic, college students remain the least investigated population (Payne-Sturges et al., 2018). In the 2018 fiscal year, the National School Lunch Program (NSLP) offered free or reduced lunch to 30 million eligible kindergarteners through Grade 12 (USDA, 2019). However, those who enrolled in college after graduation was not eligible for food assistance. According to Payne-Sturges et al. (2018), college students who viewed themselves as food insecure felt that their academic performance was affected. Those students expected a lower GPA than those who considered themselves food secure (Payne-Sturges et al., 2018). Food insecurity among college students resulted in problems with depression and anxiety (Camelo & Elliott, 2019; Henry, 2017; Mialki et al., 2021; Payne-Sturges et al., 2018).

Since the onset of the COVID-19 pandemic in 2020, there have been changes in college residence, coursework, and resources (Hetrick et al., 2020; Owens et al., 2020). Therefore, college students with risks of food insecurity who attended on-campus classes no longer had access to resources to supplement their food needs (Davidson & Morrell, 2020; Laska et al., 2020). Campus closings increased with the risks and hardships related to food insecurity (Laska et al., 2020; Weaver et al., 2020). The specifics of how the interruptions of resources affected students at risk for food insecurity are still under study. Questions remain, including what happened to those students who had to leave campus, did the disruption of college resources later predict their continuation in college study or their academic success, and were their coping responses related to these kinds of outcomes.

In this chapter, I presented the theoretical framework for the study, followed by discussions on food insecurity among college students. I gave an overview of the empirical research on the prevalence of food insecurity among college students and its effects on academic achievement. Furthermore, I presented research data on the impact of food insecurity and coping responses among African American college students experiencing the traumatic event of COVID-19. Finally, I clarified a specific gap in the professional literature on coping responses among a disadvantaged population group of American college students during the pandemic. I began the chapter by discussing the literature search strategy and providing an overview of the theoretical foundation.

Literature Search Strategy

I used several databases and search engines, which were accessed via Walden University Library. These included Educational Resource Information Center, EBSCO, JSTOR, APA PsycINFO, SAGE Journals, American Online Journals, Springer Link, Wiley Online Journal, Science Direct, Oxford Academic Databases, Medline, and Google Scholar. I also searched websites such as the *American Journal of Clinical Nutrition* and *the American Medical Association*. The key search terms and combinations included *food insecurity, college students, COVID-19 virus, academic performance, food acquisition, agencies, food security stress, coping responses, grade point average, stress and coping,* and *academic achievement.* Most (85%) of the literature included in the review published between 2016 and 2021. Recent findings were crucial to keeping the study as up to date as possible; however, some studies are older than five years because they were foundational to the study topic. The older studies referenced the framework of stress, coping, and the cognitive management theory.

Theoretical Foundation

In 1984 Lazarus and Folkman proposed a theory that used transactional stress characteristics. The theory of stress and coping described how transactions occurred between an individual and their environment. Lazarus and Folkman grouped stress into physiological, psychological, and social responses. They proposed that personal expectations about relationships between individuals and their environments were either resourceful or non-resourceful. The transactional approach emphasized an individual perception of background as stressful or non-stressful. The approach demonstrated how individuals focused on ways to cope with stress experienced in their environment (Jones & Bright, 2001). Priority given to an individual's perception of the environment included situations they could not cope with (Lazarus & Folkman, 1984).

Lazarus and Folkman (1984) divided the coping and stress theory into a cognitive appraisal. Cognitive appraisal classified expectations and unique features based on perceptions and well-being. This mental evaluation of life is essential when coping with stressful situations. Cognitive appraisal classified the encounters and various aspects of the stressful situations in terms of significance (Lazarus & Folkman, 1984, p. 31). During a cognitive appraisal, individuals use personal interpretations to assess situations as stressful or non-stressful. Therefore, the coping responses depended on how conditions are appraised (Lazarus & Folkman, 1984).

Lazarus and Folkman (1984) emphasized primary and secondary appraisal as stress and coping theory elements. Primary appraisal occurred when individuals evaluated situations for significance relative to personal preference and moral norms. During the primary appraisal,

individuals sought answers to the meaning of the risk relative to their well-being. The individual evaluated the situation by asking whether the risk would positive or negative. There was also an evaluation of whether the person can overcome the risk (Lazarus & Folkman, 1984).

The secondary appraisal is a normal cognitive process that occur as individuals figure out how to cope with stressful events (Dewe, 1991). During the secondary appraisal, there is an evaluation of coping strategies, resources, and solutions regarding the specific situation (Lazarus & Folkman, 1984). Assessing healthiness, energy, support, and accountability of coping resources occurs. As a result, accountability to oneself, another person, or groups become situational.

Coping

Coping is a behavioral and cognitive effort to understand, minimize, and endure the outer and inner demands experienced by stressful situations: "Coping regulates sentiments and distresses that lead to stressful situations; in addition, coping manages issues that cause stress by directly altering situational factors" (Lazarus & Folkman, 1984, p. 6). As a result, coping helps to eliminate distress by dealing with problems related to unpleasant feelings and emotions that produce stress. Therefore, coping describes a person's "cognitive and behavioral efforts" to manage stress (Lazarus & Folkman, 1984, p. 843). According to Lazarus and Folkman (1984), the two significant types of coping are problem-focused and emotion-focused. There are attempts to alter or manage the problem causing stress during problem-focused coping. Problem-focused coping strategies will always identify the problem, explore workable solutions, and consider the benefits before choosing an alternative. Lazarus and Folkman (1984) noted the two antecedents that can influence how an individual appraises and copes with specific situations: the nature of

individuals and those associated with the events. Overall, how individuals evaluate the stress experienced in life becomes their coping behavior.

Lazarus and Folkman (1984) divided coping strategies into problem-focused and emotional-focused. Problem-focused occur when individuals manipulate the situation that causes them distress. There is an active attempt to solve the problem during the manipulation process. However, the attempt will not manipulate situational distress. The emotional-focused approach reduces or changes the negative emotions of anxiety, fear, sadness, and anger associated with stress (Fridenberg, 2004, p. 21). Coping can also include abilities, motivations, and training strategies to help deal with stressful situations (Lazarus & Folkman, 1984; Lyon, 2000).

Review of the Literature Related to Key Variables and/or Concepts

The National Nutrition Monitoring and Related Research Act (NNMRRA) first addressed food insecurity in the United States. This Act aimed to provide comprehensive, coordinated programs to monitor nutrition research and American citizens' nutritional needs (Ahn & Norwood, 2021; Gundersen et al., 2018; Morris et al., 2016). The National Nutrition Monitoring and Related Research Act defined food insecurity as "an inability to obtain adequate food and nutrition daily" (Morris et al., 2016, p. 2). Other researchers, such as Gundersen and Zilizk (2017), reported that food insecurity is an economic and social condition that includes limited access to adequate food for individuals and families. Food insecurity also exists when there is limited availability of safe foods and an inability to acquire acceptable quantities of foods in socially acceptable ways. Food insecurity conceptualizes availability, access, and utilization (Gundersen et al., 2018). Freudenberg et al. (2019) reported that the concepts are related to

dimensions of food security; they associate with disturbing trends of food insecurity among minorities in the United States and college students (Gundersen et al., 2018; Myers et al., 2017).

Households that experience food insecurity have limitations caused by a lack of finances and resources necessary for daily living (Freudenberg et al., 2019; Myers et al., 2017). Thus, availability becomes the basis for supply and demand versus the quality of nutritious foods (Lauren et al., 2021; Payne-Sturges et al., 2018). Economic and physical access to food is critical for acquiring and maintaining a healthy and nutritious diet necessary for good health (Lauren et al., 2021). Food insecurity among minorities in the United States reduces access to neighborhood grocery stores, homegrown food, or sufficient income to purchase healthy foods (Payne-Sturges et al., 2018). Food availability, access, and utilization can influence physical well-being, cognitive functioning, and health status (Lauren et al., 2021).

Researchers note that food-insecure households have low and deficient food security (Payne-Sturges et al., 2018; Rabbitt et al., 2017). In 2016, some 5% of all households in the United States experienced inadequate food security. In 2015, the number of households in the United stated experiencing food insecurity was unchanged from 2016 (Lauren et al., 2021). The homes with a severe range of food insecurity and intake had limited resources (Lauren et al., 2021; Rabbitt et al., 2017).

The prevalence of food insecurity varies widely among certain ethnic groups in the United States population (Goldrick-Rab et al., 2017; USDA, 2019). Some ethnic groups are more likely to experience food insecurity than other groups. Researchers noted that understanding the characteristics of food insecurity among certain groups may help target needed assistance for those who need help to secure enough food to feed themselves and their families. For example,

food insecurity tends to be more prevalent in single-parent households with children. In 2016 32% of single mothers' homes and 22% of single-parent households experienced food insecurity (Goldrick-Rab et al., 2017; USDA, 2019).

Sun et al. (2020) noted that factors such as education and income could influence food access and consumption in the United States. Bruening et al. (2016) reported social factors and patterns of vulnerabilities that predict food insecurity. For example, low-income families, college students, single-parent households, single mothers, and persons on government assistance are all predictors of food insecurity (Goldrick-Rab et al., 2017). In addition, communities with high levels of poverty and unemployment have higher rates of food insecurity when compared to the general population (Goldrick-Rab et al., 2017).

Food Insecurity Among Certain Ethnic Groups

Researchers note that ethnic groups with the highest rates of food insecurity are African Americans, Native Americans, Latinos, single-parent households, and residents living in rural communities in the United States (Byker et al., 2020; Myers & Painter, 2017). Odoms-Young's (2018) scholarly review discovered that race, ethnicity, and demographic backgrounds could affect food insecurity. African American households face food insecurity twice the rates of white and non-Hispanics.

According to the research, higher food insecurity and poverty rates directly result from systemic racial and gender discrimination in America (Frongillo et al., 2019; Odoms-Young, 2018). Food insecurity can also differ based on specific demographics, economic resources, education levels, and financial assets. Coleman-Jensen et al. (2019) reported that food insecurity disproportionately affects vulnerable populations such as African Americans and Hispanics, low-

income families, and some households with children. A (2017) report by The Food Research and Action Center discovered that food insecurity is associated with poverty, poor nutrition, and low income. Many households in rural areas struggle with more hunger when compared to the urban and metro areas. Overall, there was a 12.1% higher rate of Food insecurity compared to 10.3 % in urban areas. Phojanakong et al. (2019) reported that low-income families such as African Americans and Hispanics have more significant poverty and financial hardship risks associated with higher risks for food insecurity than the white population in the United States.

Colleen et al. (2021) described food insecurity as households with limited and uncertain access to nutritious food caused by insufficient financial resources. This study examined the association between household food insecurity and severe psychological distress (SPD) among low-income Hispanic and Black adults. According to Colleen et al. (2019) research, an estimated 13.7 million households experienced food insecurity in 2019. Among the 13.7 million, the rates were higher among Black people, Hispanics, and families with children under six (Colleen et al., 2019). The results showed that adults with food insecurity had greater odds of SPD (Colleen et al., 2019). According to the researchers, SPD is less severe than clinical depression. It encompasses mental health problems that cause moderate impairment in social, occupational, and school functioning among Black and Hispanic participants (Colleen et al., 2019). The researchers concluded that understanding the disparities between food insecurity and psychological distress is essential for developing effective food programs and the treatment for mental health (Colleen et al., 2019).

Food Insecurity in Higher Education

The National Center for Education Statistics (2018) reported that 19 million students enrolled in colleges and universities across the United States. However, during the fall of 2000, 15 million students were enrolled in colleges and universities, probably reflecting the immediate consequences of the COVID-19 pandemic. The total enrollment of students in colleges and universities expected to rise in 2027 is 20 million in 2027.

The increase in student attendance caused an increase in tuition and fees, increasing the cost of attending colleges or universities across the United States. El Zein (2018) reported that some students experienced economic hardship because of tuition increases. Blagg et al. (2017) noted that college students from higher-income families were less likely to have food insecurity. Further, 2-year college students were at a greater risk for food insecurity. El-Zein (2018) reported that some 42% of college students experienced food insecurity weekly. This rate was three times higher than the average household in the United States.

Regan (2020) conducted a quantitative study to survey food insecurity among college students in 12 states in the United States. The study results showed that 48% of the respondents reported that they experienced food insecurity within the previous 30 days of taking the survey. Also, 22% of the respondents reported that they experienced a low level of food insecurity. The study results revealed that most respondents were African American college students. In addition, the study showed that 56% of the respondents were first-generation college students.

Food Insecurity Among African American College Students and Situational Stressors

Food insecurity affects African American college students the most (Henry, 2017; Payne-Sturges et al., 2018; Trawer et al., 2020). According to research, food insecurity involves a low

intake of fruits and vegetables among African American students attending colleges and universities (Meza et al., 2019; Trawer et al., 2020; Wood & Harris, 2018). A review of the scholarly literature reported that food insecurity is prevalent among African American communities because of low levels of education, less income, high rates of unemployment, and a lack of adequate food (Bruening et al., 2017; Thompson et al., 2018). One in four or 26% of African American children live in a food-insecure household compared to one in eight or 13% of White children (Bruening et al., 2017; Thompson et al., 2018; Trawer et al., 2020). A study conducted at the University of California found that 25% of the students attending experienced food insecurity during the past 12 months. Studies have also shown that food insecurity is 1.5 times higher among African American and Hispanic students than among Whites and Asians (Thompson et al., 2018).

Thompson et al. (2018) studied food insecurity among Historical Black College and University (HBCU) students relative to consuming fruits and vegetables. The study aimed to assess the food insecurity level among African American students attending HBCUs. A sample of 10,300 African American college students took an online survey from The USDA Adult Food Security Survey Module. The study results indicated that students who experienced some level of food insecurity had lower consumption of fruits and vegetables. It noted that food-insecure African American students were likelier to buy fast food than food-secure students. There was no significant difference in the body mass index of the food-secure students compared to the food-insecure students.

Kornbluth et al.'s (2021) research on food insecurity examined the prevalence of equitable access to healthy food among college students attending Historically Black Colleges

and Universities (HBCUs) and those attending public non-Historically Black Colleges and Universities (HBCUs). According to Kornbluth et al. (2021), few studies have examined the prevalence of equitable access to healthy food among college students attending HBCUs in low-food access areas (LFAs). The research shows low rates of food security for students attending HBCUs, including those living off-campus or in other HBCU environments. The study results indicated that HBCUs are in LFAs more than public colleges or non-HBCUs. The HBCUs students needed more healthy food options, such as farmer markets, campus food pantries, and mobile markets. In addition, students in LFAs were more likely to purchase unhealthy food at supermarkets. Overall, the study discovered disparities in affordable foods for students attending HBCUs (Kornbluth et al., 2021).

Payne-Sturges et al. (2018) studied student hunger and food insecurity among African American college students. The study examined the prevalence of food insecurity among students at a large mid-Atlantic public university. The study examined the association between food insecurity, demographic characteristics, potential risk factors, physical and mental health self-reports, academic performance, and risk factors associated with food insecurity. The population sample consisted of 237 undergraduate students. The students completed the USDA 18-item Household Food Security Survey Model and questions on demographics, student status, economic factors, housing stability, living arrangements, academic performance, and self-rated physical health and depressive symptoms. The study results showed that 15% were food insecure among the students surveyed, and 16% were at risk for food insecurity. The study also reported that food-insecure African American students received less financial aid or experienced housing problems that put them at risk for food insecurity. In addition, food-secure African American

students were less likely to report depression symptoms than at-risk or food-insecure students. The researchers concluded that food insecurity among African Americans and other college students is a significant public health issue that might affect academic performance, retention, and graduation rates. Payne-Sturges et al. (2018) proposed that colleges and universities measure food insecurity among their students to change local, state, and national policies.

Lin et al. (2015) studied the relationship between perceived psychological distress, behavioral indicators, and food insecurity among African American college students. The study examined the relationship between food insecurity and several psychosocial and behavioral indicators related to future orientation, self-esteem, partner conflicts, family connectedness, personal conflict resolution, and substance abuse. The sample comprised 112 female full-time students attending a Historical Black College and a University in a southern state. The study results indicated that African American females who reported problems with food insecurity were significantly more likely to report drug use, more conflict with their partners, lower future orientation, and lower self-esteem. Also, female participants with food insecurity were significantly more likely to have disputes with their partners.

Lin et al.'s (2015) survey of historically Black colleges and universities also discovered other behavioral and psychosocial factors that affected college students with food insecurity. For example, the researchers explored if diversity existed among female food-insecure students instead of food-insecure ones. They used a cross-sectional design that took several months to collect data on age, grades, school, classification, and low self-esteem. According to the survey results, African American college students with higher burdens of food insecurity had more psychological distress when compared to those with food security. According to Lin et al.

(2015), food insecurity is related to mental anguish and low self-esteem and harms academic performance (Lin et al., 2015).

Zein et al.'s (2019) study on first-year college students discovered that limited financial resources decrease in federal aid, and the high cost of tuition and housing cause vulnerabilities to food insecurity. The food-insecure students had higher rates of poor sleep quality than those at-risk for food insecurity. The racial minority students that lived off-campus and received Pell grants were more food insecure and had disordered eating patterns, higher levels of stress, and lower GPAs compared to those that were food secure. Overall, the study results revealed that food insecurity is high among college students, and there are implications for poor academic performance and health outcomes. In addition, first-year college students were more susceptible to food insecurity because of difficulty managing finances during a transition into self-autonomy.

Food Insecurity Among College Students and COVID-19

COVID-19 has profoundly affected many citizens' economic, mental, and physical health throughout the United States. Son et al.'s (2020) research discovered that since the onset of COVID-19, the mental health status of college students has become a growing concern. According to Son et al. (2020), the pandemic has brought to focus the vulnerability of college students. This study aimed to assess the effects of COVID-19 on the mental health condition of college students. The researchers conducted interviews with 195 college students at a large public university. Among 195 student participants, 238, or 71%, have demonstrated increased stress and anxiety caused by COVID-19. Multiple stressors such as fear, worry about physical health, and other negative impacts of the pandemic contributed to increased stress, anxiety, and depressive thoughts among college students. Other negative stressors include disrupted sleeping

patterns and decreased social interactions due to physical distancing concerns regarding academic performance. Overall survey results concluded that the pandemic and stay-at-home orders hurt higher education (Son et al., 2020).

In addition, COVID-19 has resulted in business and school closures, higher unemployment rates, and increased food insecurity among college students (Owens et al., 2020). Owens et al. (2020) discovered high rates of food insecurity among college students before the pandemic. Nikolaus et al. (2020) scholarly report noted that before the pandemic, many households in the United States were classified as food insecure, suggesting a crisis (More et al., 2020; Stokes et al., 2020). Before the COVID-19 pandemic, 11% of United States households were food insecure (Moore et al., 2021; Owens et al., 2020). Researchers noted that the United States household's food insecurity rates have doubled to about 23% after the COVID-19 pandemic. In addition, high-risk populations such as African Americans, college students, and Hispanics are disproportionately affected by the COVID-19 pandemic (Moore et al., 2021; Owens et al., 2020; Stokes et al., 2020).

Throughout the United States, in March 2020, many college campuses and universities were evacuated and closed immediately to avoid the spread of COVID-19 (Conrad et al., 2021). Students left school abruptly with only a few days' notice. According to Conrad et al. (2021), this sudden interruption of life meant students needed clarification regarding transportation away from college campuses, academic deadlines, and what awaited them upon returning home. Therefore, student relocation was a stressful event that led to anxiety and depressive symptoms such as loneliness, grief, sadness, distress, social isolation, loss of relationships, reduced life

satisfaction, and other adverse effects that affected physical and psychological well-being and functioning. The relocation also limited access to resources.

Owens et al. (2020) reported that many college students had higher rates of food insecurity than non-college students. Also, food insecurity among college students was more likely to affect younger, African American, and Hispanic students and students who received financial aid to attend college. Moreover, food insecurity was associated with lower dietary quality, poor mental health, and lower academic performance among college students. Several factors placed college students at risk for food insecurity during the COVID-19 pandemic. One crucial factor is that many college students worked part-time service industry jobs in bars, restaurants, and healthcare. These areas were the hardest-hit economic sectors in the United States economy during the COVID pandemic (Owens et al., 2020). In addition, many college students still need to qualify for federal government food assistance programs that help combat food insecurity during the loss of employment (Nikolaus et al., 2020). Another factor in college students' food insecurity was that many could not receive federal stimulus payments because of their parent's tax returns. Nevertheless, some researchers noted that many college students need higher food literacy in their planning abilities to shop for food items and prepare and cook nutritionally balanced meals (Owens et al., 2020). Also, the COVID-19 pandemic forced the closure of college campuses' dining halls, leaving many college students to purchase and prepare meals independently.

The COVID-19 pandemic has increased unemployment and food insecurity in the United States. According to the research, college students had higher rates of food insecurity before the pandemic. However, the food insecurity rate among college students increased during the

pandemic (Morales et al., 2020). Owens et al. (2020) conducted a study to assess the prevalence of food insecurity among college students during the COVID-19 pandemic. Using a multistep approach, including two food insufficiency screeners and three food insecurity surveys, the authors surveyed 651 college students on three diverse campuses in Texas. The study results indicated that 35% of college students classified themselves as food insecure within the last 30 days of the survey. The respondents reported a lack of food caused by a loss of part-time or full-time employment due to the COVID-19 pandemic. The study's findings highlighted the high prevalence rates of food insecurity among college students during the COVID-19 pandemic, with students losing their income and how it impacted them (Morales et al., 2020). Morales et al. (2020) cross-sectional study, including all 50 states and the District of Columbia, highlighted the differences in why people experienced food insecurity. According to Morales et al. (2020), Black households reported food insecurity because of an inability to afford food; instead, Asians encounter problems with transportation to stores and fears of being attacked. White Americans said that stores did not have the food they wanted. Morales et al.'s (2020) research concluded that racial discrimination and racism might create food inequalities across racial/ethnic groups during the pandemic. According to Morales et al. (2020), no peer-review studies have systematically examined racial/ethnic disparities in household food insecurity during the COVID-19 pandemic. However, evidence suggests the ongoing crisis adversely affected racial/ethnic minorities.

Previous research on food insecurity has shown disproportionately higher levels among racial/ethnic minority groups, especially during COVID-19. Morales et al.'s (2020) cross-sectional study, including all 50 states and the District of Columbia, highlighted the differences in why people experienced food insecurity. According to Morales et al. (2020), Black households

reported food insecurity because of an inability to afford food, instead of Asians encountering problems with transportation to stores and fears of being attacked. White Americans said that stores did not have the food they wanted. Morales et al. (2020) concluded that racial discrimination and racism might create food inequalities across racial/ethnic groups during the pandemic. According to Morales et al. (2020), no peer-review studies have systematically examined racial/ethnic disparities in household food insecurity during the COVID-19 pandemic. However, evidence suggests the ongoing crisis adversely affected racial/ethnic minorities.

Sholikah and Harson's (2021) study on the impact that COVID-19 had on college closures discovered that low involvement and low achievement affected student readiness and learning. According to Sholikah and Harson (2021), the pandemic resulted in many colleges and universities nationwide online education. The mobile app became increasingly crucial for distant learners; however, a significant problem noted with remote learning is that educators experienced an inability to reach students, less engagement, and active participation.

The impact of COVID-19 has heightened food insecurity and caused many adverse public health outcomes among individuals and communities. Niles et al. (2020) utilized the USDA's six-item survey to conduct a statewide investigation on the prevalence of food insecurity before and during the pandemic in Vermont. The study results reported challenges regarding access to food, coping strategies, and perceived helpful interventions consistent with food insecurity among many participants. Participants experiencing job loss had higher rates of food insecurity. In addition, reports of eating less cause multiple physical and economic barriers. The participants experiencing food insecurity also had higher rates of challenges regarding food access and coping strategies (Niles et al., 2020).

There were many reports of food insecurity before the pandemic. For example, Cutts and Cooke's (2017) research on the importance of screening for food insecurity discovered that it is often a hidden condition lacking physical or laboratory signs. Food insecurity is a tremendous social stigma and personal shame that remains hidden unless asked directly. This study defines food insecurity and highlights some of the attached stigmas. Cutts and Cooke's (2017) scholarly report also cites the USDA definition of food insecurity: a lack of consistent access to enough healthy food for an active, healthy life. This definition allows for the inclusion of more food-insecure families. Henry's (2017) study on food insecurity among college students discovered a higher rate than the national average of 12.7 percent, with 14–59 percent being food insecure at some point during their college career. Henry (2017) states that food insecurity is faceless, has no standard image, and is often silent. Therefore, most food-insecure students face stigmas such as shame, which prevent them from seeking assistance from parents and federal social service agencies.

Food Insecurity and Academic Success

Research has shown that food insecurity can hurt the academically successful performance of children, adults, and college students (Hagedorn & Olfert, 2018; Phillips et al., 2018). In addition, food insecurity can affect adult cognition and concentration (Hagedorn & Olfert, 2018; Phillips et al., 2018). Olfert (2018) reported that hungry students do not perform well on class assignments; food insecurity affects student behavior, academic success, and achievement. Moreover, Camelo and Elliott (2019) reported that food insecurity reduces productivity and affects students' mental health. Overall, the study results showed that food insecurity could affect cognition, the development of motor skills, and the ability to follow oral

and written instructions. However, Hagedorn and Olfert's (2018) study said that sophomores and juniors who lived in off-campus housing had many students who experienced food insecurity. The study also noted that food-insecure students displayed low engagement and coping strategies compared to their food-security peers.

Couch et al. (2017) noted that college attendance should be when students are nurtured, educated, and thrive in a positive environment instead of experiencing hunger. Hunger is a significant stressor that can cause adverse reactions to students' academic success. For example, the lack of food and nutrition can harm students' health and affect academic performance (Couch et al., 2017). Bruening et al. (2016) reported that 37% of first-year college students experienced food insecurity while attending college in their area. However, Hagedorn and Olfert's (2018) study of sophomores and juniors who lived in off-campus housing had many students who experienced food insecurity. The study also noted that food-insecure students displayed low engagement and coping strategies compared to their food-security peers.

Van Woerden et al. (2018) studied college students' food insecurity and academic performance. The study aimed to determine if socioeconomic factors and food-insecure students had a poorer academic performance. The study results indicated that the GPA of food-insecure students was significantly lower than the GPA of food-secure students. The study results showed that food insecurity negatively affected the academic performance of first-year college students. The food-insecure students were less likely to enroll in college the following year.

Payne-Sturge et al. (2018) studied food insecurity among college students and its effect on academic achievement. The study examined the association between food insecurity, demographic characteristics, risk factors, mental health, and academic performance among

students at a large mid-Atlantic university in the United States. The authors noted that 15% of college students experienced food insecurity, and 16% were at risk for food security. The study results showed that students who experienced food insecurity reported lower academic achievement than those with food security. The authors noted that examining GPA as a predictor of academic achievement may not reveal other factors that come into play for college students who experienced food insecurity. In addition, the authors noted that students who experienced food insecurity and those at risk for food insecurity had experienced poorer health than food-secure students. The food-insecure students reported low-energy levels and frequent depressive symptoms such as fatigue and loss of interest compared to secure-food students.

Debate et al. (2021) examined the impact of food insecurity on college student's physical health and academic success. The study results revealed that 46.8% of the college students were food insecure; there were significant differences in race and ethnicity. The researchers discovered higher rates of food insecurity among college students compared to the general population. According to Debate et al. (2021), food insecurity was directly and indirectly associated with poor academic success and mental and physical health. The researchers also discovered that COVID-19 was responsible for increasing food security.

Coping and Mental Health Related to Food Insecurity

Poor mental health is a leading impediment to academic success. According to information from several university counseling centers, mental illness can affect motivation, concentration, and social interactions (Son et al., 2020). Son et al.'s (2020) research on COVID-19 explored the mental health of college students. The study aimed to assess college students' mental health during the pandemic. The researchers used quantitative and qualitative methods to

understand the effects of COVID-19 on the mental health of 195 students at a large public American university. The study results indicated that 138 (71%) of the 195 students identified multiple stressors contributing to increased stress, anxiety, and depressive thoughts. The stress and anxiety levels measured included fear and worry, problems concentrating, disruptive sleep patterns, decreased social interactions, and increased concern for academic performance. Overall, study results indicated that the pandemic harmed higher education (Son et al., 2020).

Conrad et al. (2021) researched the psychological effects of students forced to evacuate colleges and university campuses during COVID-19. They analyzed data from a cross-sectional survey administered to 791 students between 18 and 30 for the CARES 2020 Project (COVID-19 Adult Resilience Experiences Study). The CARES 2020 Project was an online survey measuring young adults' mental health during the pandemic. The researchers also used snowball sampling, which means participants referred other students to the study. They were interested in whether the participants relocated during the first three months of the pandemic. If so, what were their experiences? They examined self-reported symptoms of worry, grief, loneliness, depression, generalized anxiety, and post-traumatic disorder (PTSD) related to COVID-19. Study results indicated that one-third of the students forced to relocate experienced more symptoms when compared to those who wanted to leave. The results also indicated that students who left valuable personal belongings had more symptoms of worry, grief, anxiety, and PTSD. Overall, study findings indicate that having to leave school during a public health crisis (COVID-19) can affect students psychologically (Conrad et al., 2021).

The impacts of the COVID-19 public health crisis are consistent with Beck's Theory of Hopelessness, which postulates that negative expectations are related to helplessness and

changes in future outcomes (Rabon & Hirsch, 2017). Further, Beck's hopelessness theory is related to psychosocial stressors such as age, educational levels, unemployment, and financial problems. The hopeless approach to depression provides a framework for hypothesis formulation and testing of various types of responses and outcomes (Rabon & Hirsch, 2017). Relatedly, Folkman and Lazarus (1988) model described coping patterns in response to situational events: during the cognitive appraisal, personal interpretations will assess situations as stressful or non-stressful. During the primary appraisal, individuals evaluate situations for significance relative to their personal preferences and moral norms. They also assess risk relative to their well-being and whether it will be positive or negative.

Further, they assess whether they will be able to overcome the risk. After initial cognitive assessments, the next step is evaluating how to cope with the situation: there is an evaluation of coping strategies, resources, and solutions regarding the specific situation (Lazarus & Folkman, 1984). They consider their coping resources: health, energy, support, and accountability. These evaluations of resources include consideration of oneself, others, and groups of people as possible sources for coping. Those who use the problem-solving approach continue to address the situation at hand, attempting to maximize opportunities that may be available. Those who demonstrate an emotional response may be mired in negative emotions, such as depression and hopelessness (Rabon & Hirsch, 2017), which interfere with recognizing and pursuing opportunities.

The Research Gap

Research on food insecurity suggests it is a real problem in every advanced capitalistic nation (Long et al., 2020). Many underprivileged individuals struggle to eat healthily. Long et

al.'s scholarly review provides a broad overview of food insecurity, including definitions, measurements, and its impact on health. According to their academic report, while there is a massive amount of current literature on food insecurity, more research is needed to address gaps relative to significant events, coping responses, and disadvantaged populations struggling with food insecurity.

Summary and Conclusions

Food insecurity is a problem that impacts many people in the United States. The research indicates that food insecurity affects all races, ages, genders, and ethnicities. In addition, people's physical and mental health are affected by food insecurity. There are implications that food insecurity is related to poor food choices and dietary eating habits, especially among vulnerable populations such as college students. According to the research, food insecurity is a complex problem because of the attached stigmas. Many people are ashamed to admit that they cannot purchase food because of a loss of employment, changes in living conditions, fear of going into public, and other situational stressors caused by COVID-19. Although food insecurity is a severe problem, there is no knowledge about its effects on African American college students, especially during the pandemic. Many studies have explored food insecurity among college students from different perspectives during the pandemic. However, this study will investigate whether coping responses mediate the relationship between COVID-19 environmental impacts and academic success among African American college students. The specific RQs and details regarding the quantitative study design are in Chapter 3.

Chapter 3: Research Method

Introduction

The purpose of this quantitative study was to investigate whether coping responses mediate a relationship between COVID-19-related situational stressors (students' experiences with food insecurity, residential changes, and employment) and the academic progress of African American college students. Current research has demonstrated that the burden of household food insecurity is disproportionately high among racial/ethnic minority groups (Morales et al., 2020). Nevertheless, no peer-reviewed studies have systematically examined racial/ethnic disparities in household food insecurity during COVID-19 (Morales et al., 2020). Therefore, how food insecurity and COVID-19 have affected minority college students is unknown.

Chapter 3 begins with a discussion of the research design and rationale for this study. I restate the RQ and hypotheses. The Methodology section that follows includes information on the population; sample; procedures for recruitment, participation, and data collection; and instrumentation, including the operationalization of constructs. The data analysis plan, threats to validity, and ethical procedures are discussed. A summary of the methodology will conclude the chapter.

Research Design and Rationale

I used a correlational research design to investigate the relationship between the study variables and address the RQ in this quantitative study. According to Long et al. (2020), although there is extensive current literature on food insecurity, more research is needed to address gaps relative to significant events, coping responses, and disadvantaged populations struggling with food insecurity. The design for this study was like that of Long et al., who examined food

insecurity among Indigenous people in an advanced capitalistic society. I examined food insecurity, coping responses, and academic progress among African American college students during the pandemic.

I conducted a multiple regression analysis to test coping responses as a possible mediator between college students' food insecurity and academic progress. Logistic regression was used to test whether the dependent variable was categorical. The RQ and hypotheses were as follows:

RQ: Do coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19?

H_0: Coping responses do not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

H_1: Coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

Methodology

Population

The target population for this study was African American undergraduate students attending a college or university in the United States during the 2020–2021 onset of COVID-19. The students must have participated in on-campus, virtual, or online coursework at the onset of the pandemic. The target population was African American college students with adequate reading levels. Typically, a fifth grade reading level for assessments measuring depression is expected (Centers for Medicare & Medicaid Services, n.d.). Therefore, individuals enrolled in college or university courses should meet the minimum reading and comprehension requirements. The exclusion criteria included non-African Americans who were not currently

active college students during the 2020–2021-time frame. The age range was 18 to 35 for the African American participants.

Sampling and Sampling Procedures

I used a nonprobability sampling of African American college students. A nonprobability sampling method means recruits are self-selected volunteers (Wolf et al., 2016). Thus, the sample was representative of the larger population of African American college students who met recruitment criteria. The information presented in the survey was limited to those who saw the recruitment information, had access to or who used online media, and were comfortable completing the survey. As a result, generalization of results to those who qualify but do not participate will not be viable.

Answering the RQ involved usage of a prediction equation with a proposed mediator variable. To evaluate the research hypotheses, I followed Baron and Kenny's (1986) sequential regression analyses. The final regression analysis involved the predictor variable(s), mediating, and dependent variables. There were four factors to consider when determining the minimum sample size for the power analysis. These include significance level, effect size, the power of the test, and statistical technique (Creswell, 2017). Setting the significance level for a research study is also known as obtaining a Type I error, which refers to the chance of the researcher rejecting a null hypothesis given that it is true (Gibson et al., 2017). Most researchers in quantitative studies use a 95% significance level to measure the results because this level provides enough statistical evidence for a test (Creswell, 2017). In addition, the effect size refers to the estimated measurement of the relationship between the variables, which can be small, medium, or large (Cohen, 1988). A medium effect size is better than a small effect size, but a large one is better for

the researcher (Berger et al., 2013). The power of the text refers to the probability of correctly rejecting a null hypothesis (Sullivan & Feinn, 2012). In most quantitative studies, 80% power will test the (Sullivan & Feinn, 2012).

The statistical test used for this study was a multiple regression analysis. I used this test to examine coping responses as a possible mediator between food insecurity and academic success among African American college students. A priori power analysis using G*Power (Faul et al., 2007) indicated that with moderate effect size, an *F2* equal to 0.15, alpha = .05, power = .80, and two predictor predictors to be evaluated for multiple linear regression, a minimum sample size of 68 was required (see Fritz & MacKinnon, 2007). I sought up to 80 cases to obtain a sufficient minimum number of responses and minimal missing data.

Procedures for Recruitment, Participation, and Data Collection

I obtained Walden University Institutional Review Board (IRB) permission to conduct the study. I recruited participants via LinkedIn, Facebook groups, and possibly other social media sites frequented by African American college students. LinkedIn is a popular social media network that connects college students to job possibilities (Lopez-Carril et al., 2020). Like LinkedIn, Facebook has gained popularity as a diverse cultural and social media network that motivates people (Nadkarni & Hofmann, 2012).

I provided participants with instructions on how to access the survey package. The packages included the informed consent form and the individual survey. All participants needed to follow the instructions in the recruitment announcement to access SurveyMonkey. The participants did not receive payment for their participation in this research study. All participants accessed the survey material by clicking on the URL website, which took them to the

SurveyMonkey page. The first page of SurveyMonkey contained the informed consent form. This form included guidelines regarding the participant's rights outlined by Walden University IRB. The participant could (a) choose to participate via signing the informed consent form, (b) choose not to participate, or (c) request more information before deciding. All study participants advanced to the first page of the survey. Participants who chose not to participate in the study received a "Thank you" exit page. The participants who requested more information were directed to a page with an email address to contact me regarding more information.

The participants will first answer demographic questions. These questions will provide an overall description of the research sample. The participants will complete the demographic questionnaire before advancing to the Global Food Insecurity Experience Survey, the Brief COPE Inventory (BCI), and finally, the Academic Success Inventory for College Students. The informed consent form and completion of the Survey will take about 25 minutes. All data obtained is inputted into SurveyMonkey, an Excel spreadsheet, and then set up as a data file in SPSS for data analysis.

Instrumentation and Operationalization of Constructs

A quantitative survey package will collect the data with the first questionnaire containing demographic information: gender, age, race/ethnicity, and educational level. All survey items have three instruments used in related areas of study. These include the Brief COPE Inventory, Global Food Insecurity Experience Scale (FIES), and the Academic Success Inventory for College Students (ASICS). Information on the research instruments used in the study is below.

Global Food Insecurity Experience Scale (FIES)

FIES partners with the Food and Agriculture Organization (FAO) through the Voices of the Hungry (VOH) project. The researchers used the adult-referenced questions from the Household Food Insecurity Access Scale (HFIAS) and the Latin American and Caribbean Food Security Scale (ELCSA). The FIES is a shortened, standardized experience-based measure that applies to all sociocultural (Ballard et al., 2013). Depending on the research, the FIES module takes one month to 12 months to administer. The FIES consists of eight questions capturing the range of food insecurity severity, with yes/no responses. The scale primarily measures individual experiences of food insecurity and can be used at the household level. The scale includes a case questionnaire administered to individuals who respond on behalf of the household (Ballard et al., 2013).

The reliability estimate uses the Rasch model (Fischer & Molenaar, 1995). The mean Rasch reliability was 0.740; reliability was between 0.70 and 0.80 for 79 percent of countries. These levels of reliability for a scale comprising just eight items reflect an excellent model. Simulation analyses suggested that measurement errors implied by these levels of reliability introduce errors in national prevalence estimates that are substantially smaller than sampling errors. The lowest Rasch reliability was 0.676, and the highest was 0.847. Also, Spearman's rank correlation between the two indicators of the prevalence of food insecurity and the number of internationally recognized indicators of development. The data reveal that FImod+sev and FIsev showed a significant and high correlation in the expected direction with most accepted indicators (Ballard et al., 2013).

The Brief COPE Inventory (BCI)

The theories and concepts that ground this study include relationships between COVID-19-related situational stressors and coping responses such as those theoretically derived from various coping models found in the Brief COPE (Carver, 1997). The Brief COPE is a 28-item self-report questionnaire that measures various coping responses and strategies (Garcia et al., 2018). A community sample of 168 participants that survived traumatic events validates The Brief COPE, translating into five different languages (Carver, 1997). The psychometric property of the Brief COPE demonstrates good internal consistency and test re-test reliability (DeDios-Stern et al., 2017). The Brief COPE has 14 subscales that assess the extent to which coping strategies are used (DeDios-Stern et al., 2017). The Brief COPE has 14 subscales: Self-distraction, Active coping, Denial, Substance use, Use of emotional support, use of instrumental support, Behavioral disengagement, Venting, Positive reframing, Planning, Humor, Acceptance, Religion, and Self-blame. The subscales identify primary coping styles as either Approach Coping or Avoidant Coping. Each of the 14 subscales ratings is on a 4-point Likert scale (DeDios-Stern et al., 2017). The higher scores indicate increased use of that specific coping strategy (DeDios-Stern et al., 2017). The items survey scores are 1= I've not been doing this at all, 2 = I've been doing this a little bit, 3= I've been doing this a medium amount, and 4 = I've been doing this a lot (García et al., 2018). The scores on the Brief COPE present two comprehensive coping styles: Avoidant Coping and Approach Coping. Avoidant Coping characterizes denial, substance use, venting, behavioral disengagement, self-distraction, and self-blame. Avoidant Coping is also associated with poorer physical health among those with physical medical conditions. Compared to Approach Coping, Avoidant Coping is less effective

at managing anxiety (Carver et al., 1989). The scores reported Approach Coping characterized by the subscales of active coping, positive reframing, planning, acceptance, seeking emotional support, and seeking informational help. Approach Coping is associated with more helpful responses to adversity, including practical adaptive adjustment, better physical health outcomes, and more stable emotional responses (Eisenberg et al., 2012).

Academic Success Inventory for College Students (ASICS)

The Academic Success Inventory for College Students (ASICS) is a comprehensive measure used as a screener to identify college students who might be at risk for poor academic performance. It determines appropriate interventions (Prevatt et al., 2011). The ASICS has 50 items measuring areas of academic success, divided into ten subscales. Items on the ASICS rate 1 (Strongly disagree) to 7 (Strongly Agree). The items with negative wording reverse the scores so that higher scores are converted into a scale score using a range of 1 to 100 (Prevatt et al., 2011). The evidence of validity and reliability of the ASICS used a pilot study of 315 university students with a sample of 930 students from several universities across the United States (Prevatt et al., 2011). The characteristics include a mean GPA = of 2.66 (SD=.99) on four scales. The mean age was 19.44 (SD = 2.17), and females in the sample were 58%. The ethnicities of the participants were White 68%, African American 13%, Hispanic 11%, Asian 3%, and other groups 6% (Prevatt et al., 2011).

The Cronbach alphas for the ASICS were as follows: General Academic Skills = .93, Internal Motivation/Confidence = .86, Perception of Instructor Efficacy = .92, Concentration = .87, External Motivation/Future = .88, Socializing = .84, Career Decidedness = .87, Lack of Anxiety = .77, Personal Adjustment = .86, and External Motivation/ Current = .62. Correlations

among subscales were quite variable with significant correlations found between the following subscales: Socializing and Personal Adjustment (r = .82), General Academic Skills and Personal Adjustment (r = .65) and Internal Motivation/Confidence and Concentration (r = .50; Ndoye et al., 2020; Prevatt et al., 2011). The internal consistency is within research; Cronbach's alpha value was statistically acceptable, with .70 being the acknowledged baseline for factor reliability (Ndoye et al., 2020).

Ndoye et al. (2020) conducted a study on the internal consistency of the ASICS. The internal consistency analysis from the data collected yielded similar results, with only external motivation/current showing a coefficient below the .70 threshold. Internal consistency coefficients from the data collected for this study are as follows: General Academic Skills = .89, Internal Motivation/Confidence= .86, Perception of Instructor Efficacy= .95, Concentration= .88, External Motivation/Future= .87, Socializing= .75, Career Decidedness= .86, Lack of Anxiety=.83, Personal Adjustment= .86, External Motivation/Current= .58. Data Collection Students' academic success for academic success (Ndoye et al., 2020).

Data Analysis Plan

Data from the online SurveyMonkey site will be downloaded to the spreadsheet and transferred to an SPSS data file. The student researcher will analyze and exclude data from incomplete surveys and participants not meeting eligibility requirements. I will conduct the data analysis in the following order: To describe the sample, I will summarize the frequencies of cases in various categories based on those presented in the demographic questionnaire.

Data Cleaning

Before proceeding with the research hypotheses, I will examine the data for random responses and missing values and visually inspect the data for errors. As needed, I will make corrections to the data before starting the analysis process. I will use the SPSS (Version 25) to identify missing values and outliers. I will eliminate all cases with 20% of the data missing from the scale (Creswell, 2014). Also, with fewer missing values, I will use the SPSS procedures to impute the mean score based on other responses to replace the missing value(s) for that case (Creswell, 2014). I will also evaluate score distributions for outliers. Using box plots, I will identify any data points that are more than three standard deviations from the distribution of the mean. I will also use the Winsor method to modify these outlier values and retain the data for further regression analyses (Pusparum et al., 2017).

Assumptions Testing

Regression analysis serves three primary purposes: description, control, and prediction (Nimon & Reio, 2011). In this study, I will test the model that the variable coping responses will mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19. I will test these assumptions to verify that the data satisfy the premises for multiple linear regression.

The first assumption was that there will be a linear relationship between the outcome and independent variables. I will use scatterplots to examine whether there is a linear or curvilinear relationship. Also, I will discuss the Q-Q plot of residuals to test the assumption that residuals distribute. The second assumption was that the multiple regression assumes that the predictor variables do not correlate too highly with each other (multicollinearity). I will evaluate this

using Variance Inflation Factor (VIF) values. In addition, there is an assumption that the variance of error terms will be similar to the importance of the predictor variables. I will plot the standardized residuals versus predicted values to assess whether there is an equal distribution across all matters of the independent variables.

Research Hypotheses Testing

The sequential regression analysis approach will test the proposed mediation model and related hypotheses. The RQ and hypotheses for the study were as follows:

RQ: Do coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19?

H_0: Coping responses do not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

H_1: Coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

The correlation/regression analysis for each step of the sequential mediation analysis will reflect the following evaluation (Barron & Kenny, 1986; Kenny, 2021):

1. Is the independent variable significantly related to the dependent variable?

2. Is the independent variable significantly related to the mediator variable?

3. Is the mediator variable significantly related to the dependent variable?

4. Does the mediator variable mediate the relationship between the independent and dependent variables?

Threats to Validity

Researchers noted a need to reduce threats to validity in a research study. One type of validity is external validity. External validity is how the study results can be generalized to other settings, populations, and conditions (Drost, 2011). The generalizability is unknown because of nonprobability sampling and an online methodology. Furthermore, African American college students who have experienced food insecurity during COVID-19 may be more likely to participate. The results could skew the data in strange ways. In addition to population validity, there is the question of ecological validity: how closely the questions and situations presented in the study generalize to the real-world problems and settings of the respondents (Bhandari, 2021). Ecological validity is questionable when the conditions are in written form rather than trying to simulate or approximate real-world experiences.

Internal validity relates to the degree of confidence that the tests/measurements measure what they intend to measure (Bhandari, 2021). Internal validity is the extent to which there is a relationship between the variables. In this research study, the evaluator will employ reliable and valid measures to operationally define the variables. The survey instruments will be consistent with the constructs in this research study.

Assumptions

There will be two main assumptions made for this research study: It assumes that all participants will provide honest responses to the survey questions. To assist respondents in giving accurate answers, the participants will receive information about the study, which will adhere to the anonymity and confidentiality of the participants. The informed consent will explain that participation in the survey is voluntary and that any participant can opt out or

discontinue once they have started. It assumes that survey participants will answer all survey questions to their ability. During the data collection phase, there will be no physical contact between the researcher and the participants. The purpose of no contact is to prevent the researcher from influencing the participant's responses during the survey. Clear instructions will lessen the probability of confusion and misunderstanding of each question.

Delimitations

The delimitations will explore if African American college students coping responses mediate a relationship between COVID-19 related situational stressors (students' experiences of food insecurity, residential changes, and employment) relative to their academic progress since the onset of COVID-19. African American college students will use gaps in the scholarly literature regarding factors related to the specific research problem of food insecurity. The problem addressed throughout this study is the relationship between food insecurity among African American college students and coping responses regarding their academic progress since the onset of COVID-19.

Limitations

The study's limitations are the possibility of students not feeling comfortable enough to admit that they struggle with food insecurity. Therefore, dishonesty might be a limitation. I might limit my sampling to first-year college students, which would not provide results for those in more advanced stages of college. Limiting the study to African American students may restrict the sampling pool and make reaching the minimum sample size more challenging.

Ethical Procedures

I followed Walden IRB procedures and requirements in conducting the study. Creswell (2017) reported that participants in a research study should advise how the information provided is analyzed and kept and how the results are published. The participants will be informed that they can withdraw from the study even if the survey is incomplete. Also, all personal information will be confidential and pseudo-coded to ensure the participants' anonymity. In addition, the data will be stored in a locked cabinet for five years and then destroyed. All information published within the dissertation will not identify the participants.

Summary

The purpose of this Quantitative study is to investigate whether coping responses mediate a relationship between COVID-19 related situational stressors (students' experiences with food insecurity, residential changes, and employment) and their academic progress since the onset of the pandemic among African American college students.

Overall, this chapter presented a proposed design concerning the RQ for this study. Outlined in this chapter is a description of the sampling procedures, recruitment process, and data collection methods. This chapter explains the operationalization of constructs and plans for the data analysis. In Chapter 4, the researcher presents the results of the study. Chapter 5 includes a summary and discussion of the results.

Chapter 4: Results

Introduction

In this quantitative study, I investigated whether African American college students' coping responses functioned as a mediator between COVID-related situational stressors (e.g., students' experiences of food insecurity, residential changes, and employment) and their academic progress during the onset of the pandemic. The RQ and hypotheses came from reviews of the existing literature on the COVID-19 pandemic, food insecurity, and African American college students' academic progress. The specific RQ and hypotheses were as follows:

RQ: Did coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19?

H_0: Coping responses did not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

H_1: Coping responses mediated the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

In this chapter, I present the study results.

Data Collection

After receiving approval from Walden University's IRB (no. 11-15-22-0103608), I placed the survey material on SurveyMonkey. Participants were recruited online through the Prolific.com website. Prolific enrolls individuals who agree to participate in scientific research. Their members come from various demographic groups. A researcher can specify the primary demographics for their sample, and any Prolific member who meets those requirements will receive information about the study. Those who were interested followed the link to the study

(which I set up on SurveyMonkey). Prolific has a minimum amount of money that researchers must agree to pay their participants. Data collection occurred from Spring 2020 to Spring 2021.

The target population for the study was African American/Black/biracial undergraduate male and female college students residing in the United States with an age range from 18 to 35 who attended classes on campus before the onset of COVID-19. Another criterion for these students was adequate comprehension of English with an expectation of at least a ninth grade reading level. In most quantitative studies, a minimum of 80% power is acceptable for testing the hypothesis (Sullivan & Feinn, 2012). An a priori power analysis using G*Power (Faul et al., 2007) indicated that a minimum sample size of 68 would be needed to achieve a minimum power of .80, with moderate effect size, F2 equal to 0.15, and an alpha equal to .05, for multiple linear regression with two predictors (see Fritz & MacKinnon, 2007). To secure at least 68 cases with viable data, I planned to collect at least 100 surveys. In total, 106 male and female participants met the inclusion criteria for an online survey. There was no indication of random response. Prolific paid each respondent $4.00 and received a $140.00 service charge. The average time to complete the survey was 15 minutes.

Demographics

Table 1 summarizes information for participants' age, gender, year in college, and employment status. Among the age variables, there were three categories: 18 to 23, 24 to 29, and 30 to 35. There were 48 (45.28%) participants with an age range of 18 to 23, 35 (33.01%) with an age range of 24 to 29, and 25 (23.58%) with an age range of 30 to 35. More men (54.71%) than women participated in the study. By design, all 106 participants were African Americans. There were roughly equivalent proportions of participants who were attending school during the

onset of the COVID-19 pandemic, with sophomores (26.41%) and seniors (23.58%), followed by juniors (19.81%). The smallest group was first-year students (6.60%).

Table 1

Participants' Demographics

Variable	*N*	%
Age		
18–23	48	45.28
24–29	35	33.01
30–35	25	23.58
Gender		
Male	58	54.71
Female	48	45.28
Year in college		
1st	7	6.60
2nd	28	26.41
3rd	21	19.81
4th	25	23.58
Employment status		
Full-time	25	23.58
Part-time	16	15.09

After the suspension of on-campus activities due to COVID-19, 50 (47.16%) participants moved in with family after school closure, nine (8.49%) moved with a friend or partner, 20 (18.86%) rented an apartment, 26 (24.52%) responded "other," and one (0.94%) skipped the question. Further analysis of student attendance in Spring 2020 indicated that out of 106 respondents, 70 (66.03%) were in school during the onset of the pandemic, 12 (11.32%) were in person, 43 (40.56%) were online, 27 (25.47%) were in person and online, and 23 (21.69%) reported none. Sixty-eight (64.15%) participants said their college closed, and 38 (35.84%) reported no closure.

The student-work ratio varied. Many were employed part-time when the pandemic started. Twenty-five (23.58%) participants reported full-time employment, and 16 (15.09%)

reported part-time work. There were 34 (32.07%) cases with expired data. According to Prolific, the expired data may result from the respondent's failure to answer the questions when first encountered. The respondent could have planned to return but may have forgotten or chosen not to. One (0.94%) participant revoked their consent to providing their employment status, and one (0.94%) reported that they were getting ready to start a new job at the onset of the pandemic. Thirteen (12.92%) stated that they were unemployed and seeking a job and seven (6.60%) reported having no paid employment. Four (3.77%) skipped the question, and five (4.71%) had other missing data.

Regarding eating conditions before the onset of the pandemic, 42 (39.30%) of the respondents ate on campus, 42 (39.30%) ate off campus, 21(19.81%) ate on and off campus, and one respondent (0.94%) skipped the question. When asked how many meals were eaten, forty-eight (45.28%) respondents indicated they ate either two or three times, and 49 (46.22%) ate three meals per day. Four (3.77%) reported that they ate once per day. One (0.94%) respondent skipped the question.

Regarding eating conditions during the pandemic, of the 106 respondents, 52 (49.05%) reported eating with friends. Seventy-five (70.75%) ate with their families, 17 (16.03%) ate at food banks, and three (2.83) skipped the question. There is a discrepancy regarding the total family data. A second look at the family frequency of 75 indicated that only 34 (32.07%) were valid. There were 41 respondents with invalid answers. The 41 (38.68%) invalid responses explain why the total sample size is more than 106. Further examination of 21(19.81%) data frequencies regarding a combination of on-campus and off-campus had only one (0.94%) valid response. This new data analysis reduces the on-campus/off-campus frequency to 20 (18.86%)

for on/campus/off-campus eating before the pandemic. There is a further data analysis of 34 valid respondents regarding eating conditions regarding the family during the pandemic, 17 food banks responses, 52 that ate with friends, plus the three skipped respondents equals 106 participants.

Results

Procedures for Cleaning and Screening Data

Before testing the research hypotheses, data were cleaned and screened to evaluate statistical assumptions appropriate to the study. Analyses using SPSS 27.0 results will be presented and discussed in the following pages: a summary of the participant's demographics, information on cleaning and screening the data, and data evaluation concerning assumptions of the planned statistical tests. Descriptive statistics for each variable are present, followed by steps for the multilinear regression analyses to test the research hypotheses.

The overall purpose of this study is to examine how COVID-19 may have caused specific situational stressors that may have enhanced the student's issues with food insecurity. Therefore, we must explore the students' eating conditions before and during the pandemic. The data on where the respondents ate before and during the pandemic is beneficial when determining how the changes in their eating experiences may have adversely affected them academically. Students' feelings and experiences with food insecurity (e.g., a lack of money, inability to eat healthily, and a lack of resources) varied.

A frequency of sixty-six (61.70%) was the largest found among those students that ate fewer kinds of food because of a reduction in money and other resources. The second largest group Fifty-five (51.40%) ate less because of a lack of money and other food resources. There

was a frequency of 51 (47.70%) found among the students that worried that they would not have enough to eat because of a lack of money and other resources. This third most prominent group was compatible with a frequency of 51 (47.70%) that reported they could not eat healthy and nutritious foods because of a lack of money and resources. Forty-three (40.20%) students skipped meals because there needed to be more money to purchase food, and no resources were available to help them get food. A frequency of 35 (32.70%) reported running out of food because of a lack of money and resources. 38 (35.50%) did not eat because no money or food resources were available to meet their needs. A frequency of 20 (18.70) went without food for an entire day because of a lack of money or other resources.

The Brief Cope Inventory (BCI) was used to measure coping responses among the respondents that were in school but had lifestyle changes because of the pandemic. The BCI has 14 scales that measure individual coping responses regarding how respondents handle stress during traumatic events. The scales ask questions that assess feelings and emotions during a hardship situation and help them to express how they coped.

The BCI data showed variation in how the participants coped during the pandemic. Among the 106 participants, 44 (41.50%), the highest, reported that they used self-distraction to deal with the pandemic. The second highest was forty-three (40.56%), which tried to make the situation better. Thirty-eight (35.84%) used emotional support, 36 (33.96%) used problem-focus techniques, 31 (29.24%) stopped trying, 24 (22.64%) used negative self-talk, and 11 (10.37) used alcohol to make them feel better.

The participants' grades during the onset of the pandemic ranged from "A+" to below a "D." Therefore, I focused my significance on the numerical value that is symbolic of the highest

and lowest letter grades. Listing the frequency values of the letter grades compares the grades made during the onset with those made after the pandemic started. The highest letter grade during the onset of the pandemic was an A+ with a frequency of 12 (11.32%), and the lowest letter grade was a letter grade of "below a D" with a frequency of 2 (1.88%). The highest frequency data after the onset of COVID was 41 (38.67) for A-/B+. The lowest frequency for the value D after the onset was 3 (2.83%). All data were valid. There were 6 (5.66%) respondents were not included in the table because they discontinued their school after the onset of the pandemic. An analysis of the data regarding the respondents' academic progress results is found in Chapter 5.

Reliability Analysis

As shown in Table 2, the internal consistency reliability of the survey was determined using Cronbach's alpha. A statistical analysis indicate how well the test items measure the same concept by calculating the degree to which a set of survey items corrélats (Taber, 2018). The study included one dependent variable and two Independent variables dérives from a series of questions on Likert scales. The dépendent variable was the Academic Success Inventory for College Students (ASI), and the independent variables were the Global Food Insecurity Experience Scales (FIES) and The Brief COPE Inventory (BCI). Cronbach's alpha is between 0 and 1, with higher values indicating greater internal consistency among test items. A value of 0.70 or higher is satisfactory for research purposes. The internal consistency reliability was determined using Cronbach's alpha. The Cronbach alpha is a statistical measure that indicate how well the test items measured the same construct or concept by calculating the degree to which a set of survey items correlates (Taber, 2018). The study included one dependent variable

and two independent variables derived from a series of questions on the Likert scale. The dependent variable, students' grades, were measured using the Academic Success Inventory (ASI). The students' experiences with food insecurity were measured using the Global Food Insecurity Experience Scale (FIES). The Brief COPE Inventory (BCI) measured the students coping responses. Cronbach's alpha is between 0 and 1, with higher values indicating greater internal consistency among test items. Generally, a numerical value of 0.70 or higher is satisfactory for research.

Table 2

Internal Consistency Reliability Analysis of the Constructs

Instrument	*N*	No. of items	Item *M*	Scale *M*	Cronbach's α value
Academic Success Inventory for College Students	106	19	4.99	94.86	.79
Global Food Insecurity Experience Scale	95	8	.43	3.42	.89
Brief COPE Inventory	97	16	2.19	35.09	.86

The study's reliability analysis revealed that both dependent variable scales had Cronbach's alpha values higher than the recommended cut-off, indicating they were reliable.

Application of Baron and Kenny's Mediation Method

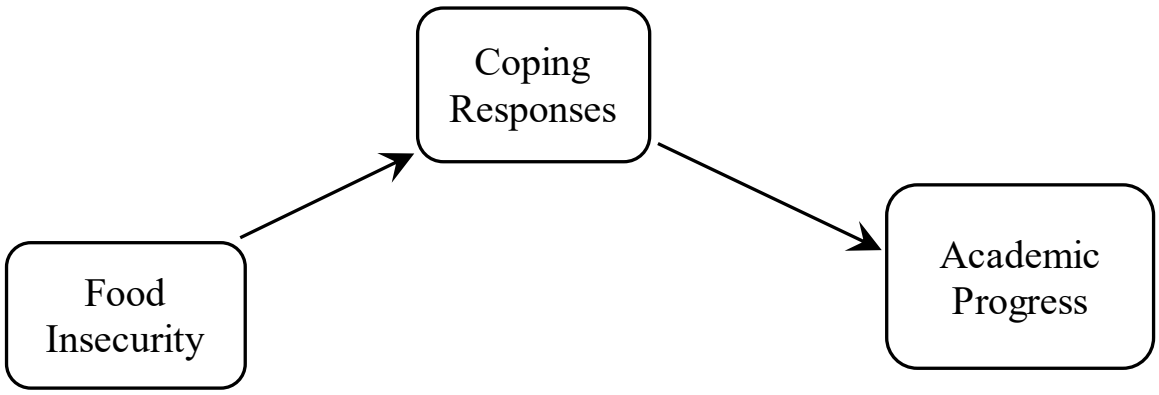
I used Baron and Kenny's (1986) mediation method to determine whether coping responses mediated the relationship between food insecurity stressors and academic progress among African American college students during COVID-19 (e.g., Figure 1). Baron and Kenny's (1986) method is an analysis strategy for testing mediation hypotheses. Baron and Kenny outlined four steps to take when testing a mediational hypothesis. Applying their method, I took the following actions:

1. Determined that the independent variable of food insecurity was correlated with the outcome variable of academic success.
2. Determined whether there was a correlation between food insecurity and the mediator variable of coping responses.
3. Determined if there was a correlation between the dependent variable of academic progress and the mediator variable.
4. Established the complete mediation across the variables.

According to Baron and Kenny's mediation method, there are two paths (food insecurity and coping responses) to the dependent variable.

Figure 1

Mediating Role of Coping Responses Between Food Insecurity and Academic Progress



Step 1

A simple regression analysis tested whether food insecurity significantly predicted students' academic success. The model as a whole was able to predict academic success significantly, F (1,104) = 9.692, p = .002, R^2 = .085. The R^2 value indicated that the linear relationship of food insecurity accounted for approximately 9% of variations in academic

success. The regression results showed that all food insecurity significantly predicted academic success (β = 1.453, p = .002), which implied that for every unit increase in food insecurity, there was an increase in the academic success of 1.5 units. The food insecurity score was such that the more scores, the more the students were food insecure.

Step 2

A simple linear regression predicted the coping response of the students food insecurity index. A significant regression equation was found (F (1,104) = 9.020, p = .003), with an R^2 of .080. The regression results showed that all food insecurity significantly predicted coping responses (β = .954, p = .003).

Step 3

A simple linear regression predicted the students' academic success based on coping response scores. A statistically significant relationship was found (F (1,104) = 20.743, p < .001), with an R^2 of .166. The regression results showed that coping response scores significantly predicted academic success (β = .601, p < .001).

Step 4

The impact of food insecurity with coping responses as a mediator in predicting academic success investigated a standard multiple linear regression, α =.05 (two-tailed). The model's independent variables were food insecurity and coping response. Academic success was the dependent variable. The model as a whole was able to predict academic success significantly, F (2,103) = 12.895, p < .0001, R^2 =.200. The R^2 value indicated that the linear combination of the predictor variables (food insecurity and coping responses) accounted for approximately 20% of variations in academic success. In the final model, both independent variables were statistically

significant, with food insecurity (β =.956, p = .039) accounting for the most significant contribution to the model, followed by coping responses (β = .521, p > .001).

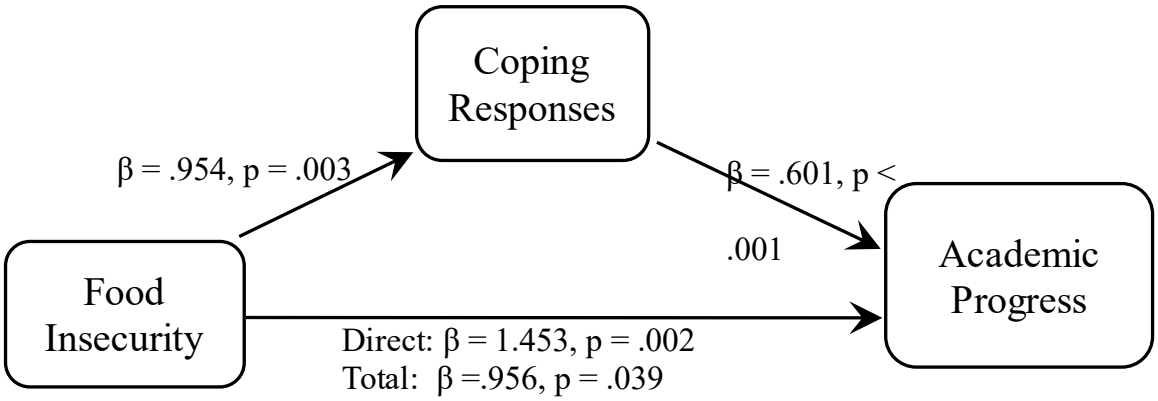
Mediation Analysis Summary

In mediation analysis, the study's goal was to test if there was any statistical significance for the indirect effect and estimate the point effect using the unstandardized coefficient beta (β) and Standard Error for paths in steps 1 and 2 above. From the preliminary analysis, all the variables in the mediation analysis had a relationship between them, shown by the statistically significant regression coefficients (e.g., Figure 2). The analyses from the above steps did not indicate complete mediation, as the inclusion of the mediation variable (coping response) did not drop the relationship between the independent variable (food insecurity) and the dependent variable (academic success). The mediation is, therefore, partial, where the mediating variable accounts for some, but not all, of the relationship between the independent and dependent variables. For partial mediation will establish the reduction in variance explained by the independent variable must be significant, as determined by the Sobel test.

The Sobel test determined that the indirect effect of food insecurity on academic success, mediated by coping responses, was β = .573, p = .014. The null hypothesis is rejected, and the alternative hypothesis is accepted; coping responses mediated the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

Figure 2

Final Mediation Analysis Coefficients



Summary

The purpose of this Quantitative study was to investigate whether coping responses mediated a relationship between COVID-19-related situational stressors (students' experiences with food insecurity, residential changes, and employment) relative to African American college students' academic progress. The regression analysis indicated a 9% change in academic success due to food insecurity. The results significantly predicted a correlation between food insecurity and academic success among African American college students during the pandemic. The regression model also linked food insecurity to coping responses. Coping response scores significantly predicted academic success showing a 20% variation. The results indicated that coping responses mediated a significant relationship between food insecurity, Covid 19 situational stressors, and academic progress. Chapter 5 includes a summary and discussion of the overall results.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Food insecurity has become a critical public health concern in the United States due to recent increases in the number of affected individuals (Knol et al., 2017; Payne-Sturges et al., 2018). Food insecurity is the lack of consistent access to enough food for an active, healthy life (Coleman-Jensen et al., 2020). It has adverse outcomes for college students, such as lower academic performance and limited economic opportunities (Gundersen & Ziliak, 2018; Knol et al., 2017; Reagan, 2020Certain groups, such as African Americans, Native Americans, and Latinos, as well as single-parent households and those residing in rural communities, are more likely to experience food insecurity (Byker et al., 2020; Myers & Painter, 2017).

African American households face food insecurity at a rate two times higher than White families and non-Hispanics (Byker et al., 2020). These disparities in food insecurity rates are closely linked to systemic racial and gender discrimination in various aspects of American life, leading to poverty, high food insecurity, and a widening wealth gap (Frongillo et al., 2019; Odoms-Young, 2018). Given the negative impact of food insecurity on academic progress and overall well-being among college students, it is crucial to develop effective interventions to reduce food insecurity rates and promote food security among college students, especially those from underrepresented groups. Interventions can include increasing access to food resources and developing partnerships with community organizations to support food-insecure college students. Implementing awareness campaigns to increase understanding of the prevalence and impact of food insecurity can be an intervention. These efforts can help address food insecurity's critical public health concern and promote health equity among all college students.

In this quantitative study, I investigated coping responses as a mediator between African American college student's COVID-19-related situational stressors (e.g., students' experiences of food insecurity, residential changes, and employment) and their academic progress. The RQ and hypotheses utilized in this study were developed from reviews of the existing literature on the COVID-19 pandemic, food insecurity, and African American college students' academic progress. The situational predictors of this study were stressors related to the impact of the COVID-19 pandemic relative to African American students' experiences with food insecurity, changes in living arrangements, leaving campus, and the loss of employment. I also explored whether students coping responses mediated these students' academic progress since the onset of the COVID-19 outbreak. The RQ and hypotheses were as follows:

RQ: Do coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19?

H_0: Coping responses do not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

H_1: Coping responses mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19.

This study is potentially significant because previous researchers have only begun to explore and understand the relationships between food insecurity, COVID-19, and academic progress and performance among college students (Mialki et al., 2021; Owens et al., 2020). As a result, there was little knowledge about food insecurity and coping strategies among racial/ethnic college students during COVID-19 when this study was conducted. Previous research has shown that household food insecurity disproportionately affects racial/ethnic minority groups (Morales

et al., 2020). However, researchers have not systematically examined racial/ethnic disparities in household food insecurity during the COVID-19 pandemic (Morales et al., 2020). Therefore, it was crucial to conduct this study to address the gaps in knowledge about the impact of COVID-19 on food insecurity and coping strategies among minority college students.

By exploring the coping responses mediating the relationship between food insecurity stressors and academic progress among African American college students during COVID-19, I sought to further understanding of how students from underrepresented groups are affected by food insecurity during the pandemic. The findings of this study may inform the development of effective interventions that address food insecurity and promote academic success among African American college students during COVID-19 and beyond. It is essential to understand the unique challenges faced by minority college students during this pandemic and develop targeted strategies to support their academic progress and well-being. In addition to addressing the gap in knowledge about food insecurity and coping strategies among African American college students during COVID-19, the study's findings further understanding of the unique challenges underrepresented groups face. The study findings can inform the development of targeted interventions that address food insecurity and promote academic success among African American college students during COVID-19 and beyond.

The study revealed significant correlations between food insecurity and academic success among African American college students during the COVID-19 pandemic. The regression analysis demonstrated that all types of food insecurity significantly predicted academic success. For every unit increase in food insecurity, there was an associated increase in 1.5 units of academic success. I also explored the relationship between food insecurity stressors and coping

responses, finding that coping response scores significantly predicted academic success. These findings indicated that African American college students' ability to cope with food insecurity stressors significantly affected their academic progress and success during the pandemic.

The null hypothesis, which stated that coping responses did not mediate the relationship between food insecurity stressors and academic progress among African American college students during COVID-19, was rejected in favor of the alternative hypothesis. This indicated that coping responses significantly mediate the relationship between food insecurity stressors and academic progress. The study's findings demonstrated the critical need to address food insecurity among African American college students during the COVID-19 pandemic. Additionally, the study highlighted the importance of developing effective coping strategies to help students manage the challenges associated with food insecurity and maintain their academic progress. By identifying the relationship between food insecurity stressors, coping responses, and academic success, the study provided valuable insights that can inform interventions and policies to support African American college students during and beyond the pandemic.

Interpretation of the Findings

Food insecurity is a prevalent issue in the United States that affects people of all races, ages, and ethnic backgrounds (USDA, 2021). In 2019, 10.5% of American households reported that food insecurity is slightly down from the 11.9% reported in 2018 (USDA, 2021). The issue of food insecurity impacts many individuals and households in the United States, and research indicates that it affects all races, ages, genders, and ethnicities. College students who experience food insecurity have reported feeling that their academic performance is affected and expect a lower GPA than those who consider themselves food secure (Payne-Sturges et al., 2018). While

the COVID-19 pandemic affected mental health and increased food insecurity across the general population, less was known about the virus's impact on college students (Goldrick-Rab et al., 2021). The current study also confirmed these findings, which found that African American college students who experienced food insecurity also struggled academically. Before the onset of the pandemic, many respondents (39.4%) reported eating on campus. Students attending on-campus classes had access to resources to supplement their food needs (Davidson & Morrell, 2020; Laska et al., 2020). When college campuses closed, many students who relied on resources from the school for food needs lost those resources. However, the closing of campuses at the onset of the pandemic resulted in students no longer having access to these resources, which exacerbated their risk of food insecurity.

Several participants in the current study reported using harmful coping mechanisms during the COVID pandemic, affecting physical and mental health. Previous research by Payne-Sturges et al. (2018) found that food insecurity was associated with higher rates of depression symptoms among at-risk and food-insecure African American students. Additionally, 11 participants in this study reported using alcohol to cope, which is consistent with the findings of Lin et al. (2015), who reported that African American females experiencing food insecurity were more likely to engage in drug use and experience conflicts in relationships, lower future orientation, and lower self-esteem. Owens et al. (2020) also noted that college students, particularly younger African American and Hispanic students receiving financial aid, were more likely to experience food insecurity during the pandemic. One reason is that students working in part-time service industry jobs experienced pandemic-related shutdowns, Owens et al. stated. The current study found that many respondents were employed part-time when the pandemic

began; therefore, their job loss contributed to their food insecurity stressors measured in the study.

Many studies have found a strong association between food insecurity and poor academic performance among children, adults, and college students (Hagedorn & Olfert, 2018; Phillips et al., 2018). Food insecurity decreases cognitive function and reduces adult concentration (Hagedorn & Olfert, 2018; Phillips et al., 2018). Food insecurity impacts academic success among students, with hungry students exhibiting poor performance on class assignments and exams (Hagedorn & Olfert, 2018). The findings of this current study are consistent with previous studies, which have also found that food insecurity significantly predicts academic success.

Similarly, Hagedorn and Olfert's (2018) study found that food-insecure students are likelier to display low engagement and coping strategies than their food-secure peers. This current study's and previous literature's findings underscore the critical importance of addressing food insecurity among students and other vulnerable populations to promote academic success and achievement. By ensuring access to nutritious food, policy makers, educators, and other stakeholders can help mitigate food insecurity's negative impacts and promote positive academic outcomes.

The results of this study indicated that different forms of food insecurity significantly predicted both academic success and coping responses among African American college students during the COVID-19 pandemic. These findings align with Lazarus and Folkman's Stress and Coping Theory, which states that stress arises when individuals perceive that their demands outweigh their resources for coping with those demands (Lazarus & Folkman, 1984). For African American college students who experienced food insecurity during the pandemic, their demands

may have included academic work, financial responsibilities, and personal concerns related to food insecurity. Meanwhile, their resources for coping may have included access to food resources, social support, and coping strategies. The study's findings suggest that the coping responses of African American college students, such as stress management techniques, support groups, and individual counseling sessions, can significantly impact their academic progress and success during the pandemic.

These results are consistent with the problem-focused coping approach outlined in Lazarus and Folkman's theory, which emphasizes actively seeking out and utilizing resources to manage and alleviate stressors (Lazarus & Folkman, 1984). By taking proactive measures to manage stress and access resources, African American college students navigate the challenges of food insecurity and maintain their academic success during the pandemic. Overall, this study's findings support Lazarus and Folkman's Stress and Coping Theory by highlighting the critical role of coping responses in the relationship between food insecurity stressors and academic success among African American college students during the COVID-19 pandemic. By addressing food insecurity and providing support for coping and stress management, educators and policy makers can help to ensure that all students have the resources they need to succeed academically, regardless of their circumstances.

Limitations of the Study

Before conducting the study, it was essential to identify and address several potential limitations to ensure the validity and reliability of the research findings. The first limitation concerned the use of self-reported data from study participants. As with any study relying on self-reported data, there is a risk of potential inaccuracies due to various factors, such as

participants' memory recall or social desirability bias. However, some measures can mitigate the limitation to ensure the data's accuracy and honesty. First, the study's participants were informed about the importance of providing accurate and honest responses. Confidentiality and anonymity of responses were assured. Second, the survey questions were designed with care and rigor, considering existing literature on the topic to ensure clarity and relevance. The questions were also pre-tested to ensure that the participants understood them and that they elicited the desired information.

The study incorporated various validation measures to enhance the validity of the self-reported data further. For instance, study results are compared with existing literature to establish consistency and reliability. The study's findings were also subjected to rigorous statistical analyses to detect any potential discrepancies or outliers that could have arisen due to inaccuracies in the self-reported data. Despite these measures, it is worth noting that self-reported data remains a potential limitation in any study. Future studies could consider supplementing self-reported data with objective measures such as biomarkers or clinical assessments to address this. Additionally, researchers could conduct follow-up studies to validate the accuracy of the self-reported data and examine any potential biases or inaccuracies that may arise.

In summary, although self-reported data presents a potential limitation to any study, careful design, rigorous testing, and validation measures can mitigate this limitation and ensure the validity and reliability of research findings. By incorporating these measures, researchers can gain valuable insights into complex phenomena, such as food insecurity, and inform policy and practice to improve the well-being of vulnerable populations.

Recommendations

There are several recommendations made as a result of this study. A longitudinal study that follows participants over time could provide valuable insights into how food insecurity affects academic success over an extended period. This study would also allow researchers to identify changes in food insecurity and academic success as students' progress through higher education. While the current study focused on food insecurity, future research could explore the impact of other factors, such as housing insecurity, financial insecurity, and mental health, on academic success. By examining these additional factors, researchers can better understand the complex interplay between various social determinants of health and educational outcomes.

Qualitative research that involves in-depth interviews or focus groups could provide a better understanding of how food insecurity affects academic success among African American college students. This research could also identify coping mechanisms and support systems students use to manage food insecurity and maintain academic success. Future research could also explore the effectiveness of interventions designed to address food insecurity and improve academic success among African American college students. These interventions could include increasing access to affordable and healthy food, financial assistance, and mental health support. It would also be helpful to compare the prevalence and impact of food insecurity on academic success among African American college students with other racial and ethnic groups. This would provide a broader perspective on how food insecurity affects academic success across different populations and inform the development of targeted interventions.

Implications

The study's findings have significant implications for policy and practice, particularly in addressing the problem of food insecurity among African American college students. By shedding light on the prevalence and impact of food insecurity stressors on academic progress, the study could serve as a valuable resource for policy makers and educators seeking to implement targeted interventions and programs to improve these students' educational outcomes. One potential policy solution could be to increase access to food resources and support for students experiencing food insecurity. Hopefully, this could involve expanding campus-based food pantries, providing meal vouchers, or partnering with community organizations to offer food assistance programs. Additionally, policies addressing the root causes of poverty and systemic inequalities, such as affordable housing and living wages, could help alleviate food insecurity among African American college students.

The study's findings also have implications for developing interventions to support coping responses and improve academic progress among food-insecure African American college students. By identifying effective coping mechanisms, such as stress management techniques, social support, and counseling, there could be interventions to meet the specific needs of this population and improve their overall well-being. Moreover, the findings of this study highlight the need for a broader understanding of the systemic barriers that perpetuate academic and health inequities among marginalized communities. By recognizing the impact of food insecurity stressors on academic progress, the study findings underscore the importance of addressing the underlying social determinants of health and promoting health equity. The study's findings have the potential to catalyze positive social change by informing policies and practices

that support food-insecure African American college students and by contributing to a broader understanding of the intersections of race, poverty, and health disparities.

Theoretical Implications

This study contributed to the existing literature on the impact of food insecurity on academic achievement, particularly among African American college students during the COVID-19 pandemic. The study's findings highlighted the prevalence and significance of food insecurity stressors in hindering academic progress among this population. This knowledge could inform the development of targeted policies and practices to reduce food insecurity among African American college students, ultimately leading to improved academic outcomes. The study also provided insights into the role of coping responses in managing food insecurity stressors and their impact on academic progress. By identifying effective coping mechanisms, the study could help develop interventions that support African American college students in managing food insecurity and maintaining academic success. This knowledge could also have broader implications for developing coping interventions to address stressors and improve outcomes in other marginalized communities.

Finally, the contribution of the findings to the theoretical understanding of coping responses in the context of food insecurity stressors could have broader implications for developing coping theories and models. The results revealed the complexity of the relationship between stress and coping and highlighted the role of coping in mitigating the negative impact of stressors. This could inform the development of new coping theories and models that incorporate the role of coping in managing stressors and improving outcomes. Overall, the study's contribution to the theoretical understanding of coping responses and the impact of food

insecurity stressors on academic achievement could have significant implications for policy, practice, and future research.

Finally, the study contributed to developing a more comprehensive understanding of health disparities among marginalized communities. The study revealed the systemic barriers and social inequities contributing to health and academic disparities among marginalized communities by examining how food insecurity stressors affect academic progress among African American college students. This knowledge could inform the development of new theories and models that consider the role of social determinants of health in the stress and coping process. Overall, this study impacted the stress and coping theory by contributing to a better understanding of coping responses, the complexity of the stress and coping process, and health disparities among marginalized communities.

Practice Implications

The study's results have important implications for developing interventions to support coping responses among African American college students experiencing food insecurity stressors. Interventions such as stress management training, support groups, and individual counseling could effectively promote coping strategies among these students. Furthermore, the study findings indicated that food insecurity stressors negatively affect academic progress among African American college students, highlighting the importance of increasing access to food resources. Initiatives such as campus food pantries, SNAP outreach, and partnerships with local food banks could effectively reduce food insecurity and improve academic achievement among these students. Awareness-raising campaigns could be developed based on the study's findings to increase awareness and understanding of the prevalence and impact of food insecurity among

African American college students. Educational programs, social media campaigns, and campus-wide events could raise awareness about the issue and promote strategies to address it. Implementing these interventions can improve the well-being and academic success of African American college students experiencing food insecurity stressors.

Community organizations have been recognized as vital in supporting African American college students who experience food insecurity stressors. Collaborating with local organizations that offer food assistance, housing support, and mental health services can guarantee that students have access to the resources they need to cope with food insecurity stressors and sustain their academic progress. The study findings have demonstrated that food insecurity stressors can adversely affect academic success among African American college students. Providing educational and financial support, such as scholarships, tutoring, and financial aid, can help students concentrate on their studies and maintain academic progress despite food insecurity stressors. Such initiatives can catalyze ensuring that African American college students have the necessary resources and support to overcome food insecurity stressors and achieve academic success.

Conclusion

Food insecurity is a significant issue affecting many people in the United States, regardless of race, age, gender, or ethnicity. The research shows that individuals experiencing food insecurity suffer from adverse physical and mental health outcomes. This issue also affects dietary habits and food choices, particularly among vulnerable populations, including college students. Food insecurity is a complex problem that is challenging to address because of its stigmas. Many people feel embarrassed to acknowledge that they cannot afford food due to

various factors such as unemployment, changes in living situations, fear of going into public places, and other stressors related to COVID-19. Therefore, it becomes difficult to identify and support those experiencing food insecurity.

Food insecurity among college students has long been a concern, especially among minority populations. However, the COVID-19 pandemic brought renewed attention to this problem, highlighting how economic and social upheaval can exacerbate food insecurity. Despite the severity of the issue, there is limited research on the impact of food insecurity on African American college students, particularly during the pandemic. This is a significant gap in our understanding of the issue, given that African Americans are disproportionately affected by poverty and unemployment. Additionally, the COVID-19 pandemic has exacerbated economic inequalities and created additional barriers for those already struggling with food insecurity. While some studies have explored food insecurity among college students during the pandemic, none have investigated the role of coping responses as a mediator between situational stressors and academic progress among African American college students. This study sought to fill this gap by examining whether coping responses mediate the relationship between situational stressors and academic progress among African American college students during the COVID-19 pandemic.

The findings of this study are significant because they shed light on the importance of coping responses in managing food insecurity stressors and maintaining academic progress. The study revealed that African American college students who could effectively cope with food insecurity stressors were more likely to experience academic success during the pandemic. These findings are significant because they demonstrate the need for interventions that support coping

responses among college students who experience food insecurity stressors. Moreover, this study highlighted the disproportionate impact of food insecurity on racial/ethnic minority groups, such as African American college students. The study findings suggest that targeted efforts are needed to address this issue and ensure all college students can access adequate food resources. This study contributed to a growing body of research recognizing the importance of addressing food insecurity among college students and highlighting the need for ongoing efforts to support marginalized groups in higher education.

In summary, this study's findings provided essential insights into the role of coping responses in mitigating the adverse effects of food insecurity stressors on academic progress among African American college students during the COVID-19 pandemic. These findings have practical implications for developing interventions that support coping responses among college students who experience food insecurity stressors. Additionally, the study contributes to a broader understanding of the impact of food insecurity on marginalized communities and underscores the need for ongoing efforts to address this issue.

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