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# Food Insecurity and the Experiences of Adults Aged 65 Years and Older

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## Yvonne Mannings

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Walden University 2023

#### Abstract

Food Insecurity and the Experiences of Adults Aged 65 Years and Older

by

Yvonne Mannings

MA, Walden University, 2019
BS, Purdue University Global, 2016

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Human Services

Walden University

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#### **Abstract**

Researchers have indicated that food insecurity has become one of the fastest-growing social issues in the United States, affecting over 5 million older Americans. This generic qualitative study explored the experiences of adults aged 65 years and over living in the southeast region of Florida facing food insecurity and how social support plays a role in food insecurity. The social-ecological theory was used as a framework. Semistructured interviews were the data collection method used for this study, and open coding, was used to identify codes, categories, and themes that emerged from the data. These data, field notes, and journal notes were professionally transcribed verbatim. Eight themes emerged, all related to food insecurity among the targeted population including: Lack of transportation means obtaining nutritional foods at various agencies and supermarkets; Income and overall fund levels upset the ability to obtain nutritional foods; High food costs; Benefits and resources like housing help some individuals find nutritional food funds; Health concerns, health problems, and disabilities are also linked with a lack of nutritional foods and meals; COVID-19 compounded health issues, financial issues, and access to healthy foods; Accessibility and a lack of assistance were barriers; and Safety concerns for those living on the street and not having somewhere safe to get resources and benefits. The study also confirmed that food insecurity is an important social problem that has a major impact on the lives of older adults. These results may help older adults, families and support networks for older adults, social workers, and health care workers who all interact with and support the needs of this population. It is imperative that social support systems are personalized to help reduce the adverse impact of food insecurity.

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#### Chapter 1: Introduction to the Study

An increased focus on nutrition, social support, and the overall well-being of older adults has become paramount as global and local leaders grapple with emergent and recurring global challenges. These challenges have proven that vulnerable populations, particularly low-income and more senior adult households, are uniquely affected due to factors such as socioeconomic status, social isolation, geographical location, race, and education (Davis et al., 2016; Morris et al., 2019; Nagata et al., 2015). These influences have increased these vulnerable groups' exposure to food insecurity within communities across the United States and globally, as their access to reliable and safe food supplies has been impacted (Hutt et al., 2014).

Additionally, many older adults experience declines in their physical abilities to sufficiently manage their nutrition and their ability to maintain safe and reliable food supplies (Jackson et al., 2019). These increasing limitations showcase the older adult's reliance on social support systems and highlight the older adult's dependence on external help in meal preparation, meeting daily needs, and providing emotional and neighborhood support (Xiao et al., 2018). Therefore, social support must be accessible to older adults as it plays a role in their ability to maintain their quality of life and independence (Davis et al., 2016).

This chapter presents an introduction of the main topic, food insecurity. This chapter also includes the background section, which provides the framework for the other sections within this chapter. This section addresses food insecurity, the dimensions of social support, and the role food insecurity plays in most older adults' lives.

Subsequently, I include the description of the problem statement, the purpose of the study, the research question and outlined focus of the study, the target population, and the importance of the study. An outline of the conceptual framework, the social ecological model, is provided to support the research's basis and an overview of the nature of the study. Key terms are defined to clarify frequently used words in the investigation. The chapter concludes with a discussion of the assumptions, scope and delimitations, limitations, and significance of the problem.

#### **Background**

Food insecurity as a social issue has become more evident in marginalized and vulnerable communities despite the current social change efforts that groups and organizations such as Meals on Wheels America, Feeding America, and Shepherd's Centers of America have implemented (Dumitrescu, 2016). The Food and Agriculture Organization (FAO) reported that globally, an estimated 2 billion individuals continue to experience the challenges of food insecurity (FAO, 2019, p. vii).

Previous studies have focused on the impact of food insecurity on public health and its overall cost at the local, state, and national levels (Lund et al., 2018; Pooler et al., 2018; Tkatch et al., 2017). These studies have linked food insecurity to the increase in older Americans' chronic health conditions and have offered guidance on the risks and factors that can improve health, nutrition, and diet (Bishop & Wang, 2018; Garcia et al., 2018). These studies have also offered insights into the problems with fragility, accessibility, and mobility that older adults face as they try to maintain their independence (Eun Sum et al., 2018; Fernandes et al., 2018; Warmoth et al., 2015).

While this focus is conducive to understanding the challenges of food insecurity, it lacks the comprehensive outlook needed to understand the social implications.

The apparent link between nutrition and health concerns has proven that a nutritious diet is advantageous to good health for older adults (Gyasi et al., 2020). However, as communities across the United States have continued to experience food insecurity and as the population ages, it is crucial to focus on factors contributing to food insecurity, particularly social support for older adults (Burris et al., 2019). Social support for older adults is critical to their psychological, emotional, and overall wellbeing (Morgan & Kunkel, 2016). Social support has often been acknowledged as a determinant in improving older adults' quality of life (Xiao et al., 2018). Therefore, different social support dimensions are critical to the older adult and contribute to improving their coping capabilities and access to definite resources (Gyasi et al., 2020). While each dimension of social support is independently essential, they also work collaboratively to provide adequate support for the individual. These three dimensions are emotional support, instrumental support, and informational support (Dai et al., 2016).

## **Problem Statement**

The United States Department of Agriculture stated that food insecurity is inconsistent access to safe and nutritional food supplies (as cited in Coleman-Jensen et al., 2019). Food insecurity has become one of the fastest-growing social issues in the United States, affecting over 5 million older Americans (Ziliak & Gundersen, 2022). Reports developed by FAO (2019), Feeding America (2020a), and Meals on Wheels America (2017) revealed that food insecurity continues to be a multifaceted social issue

that has been difficult to solve due to its underlying causes. As these older Americans continue to experience its direct effects despite numerous social interventions, the focus remains limited.

Presently, the literature has continued to focus on the health-related outcomes and the government-related programs available to reduce food insecurity risks (Fernandes et al., 2016; Ziliak, & Gundersen, 2022; Murthy, 2016). Studies such as Weirich and Benson (2019), Dumitrescu (2016), and Parks et al. (2020) explained that the Supplemental Nutrition Assistance Program (SNAP), supplemented by the United States Department of Agriculture (USDA), provides direct cash assistance to food-insecure eligible individuals, including older adults, to increase access to nutritious and daily food supplies. Wilson (2017) noted that the Senior Farmers' Market Nutrition Program, also overseen by the USDA, provides eligible older adults with direct assistance to purchase healthy foods such as fruits and vegetables at participating farmers' markets and other locations. Meals on Wheels America's (2017) report, Hunger in Older Adults, postulated that all government-related programs have eligibility criteria that the older adult must meet to gain its benefits (pp. 9-10). However, many older adults underutilize these programs due to the challenges of stigma, lack of social support, income, cultural beliefs, and lack of information (Meals on Wheels America, 2017). Parks et al. (2020) and Wilson (2017) also stated that despite the availability of these government-related programs, participation rates are low among older adults due to these challenges.

While the current literature has continued to be relevant to this social issue's gradual solution, this generic qualitative study offers new insights into the experiences

and meanings of those facing food insecurity. It provides firsthand data on ineffectiveness areas within current interventions. Although the research mentioned earlier regarding food insecurity illuminates essential findings, I found no study examining the experiences of older adults who faced food insecurity and its role in their social support. Given such, further research is warranted to explore the perceptions of food insecurity and its role in the social support of older adults to address the documented problem of social isolation and loneliness in older adults (Murthy, 2016; Ziliak & Gundersen, 2022).

#### **Purpose of the Study**

The purpose of this generic qualitative study was to explore the experiences of adults aged 65 years and over living in the southeast region of Florida facing food insecurity and how social support plays a role in food insecurity. The forecasted continual growth of food insecurity and the constant daily choices that most older adults face between finding their next meal or maintaining their health has highlighted the need for more focus on their opinions and thoughts on this issue (Meals on Wheels America, 2017; Ziliak & Gundersen, 2022). In addition to contributing new data on the social problem of food insecurity, I aimed to increase awareness of the currently limited focus on the nonnutritional risks associated with food insecurity. My findings offer insights into the views of those experiencing this issue and the current impact on their social support networks. By increasing the community's focus on these nonnutritional risks and first-hand experiences, leaders and groups could evaluate, improve, or create interventions and

campaigns that include a broader focus on positive social systems for older adults, mitigating associated stigma, and increasing information sharing.

### **Research Question**

Research question: What are the experiences of adults above the age of 65 living in metro areas of Broward County who are facing food insecurity, and how does social support play a role in food insecurity?

#### **Conceptual Framework**

In this study, I applied the social-ecological model framework concepts to provide context on the importance of the interrelationship between the individual and their social support network systems. The pioneers of the ecological model of health promotion framework, McLeroy et al. (1988), proposed that targeting environmental factors guide social support, social interactions, and behavior while aiding in recognizing influences that impact the individual's behavior and improving healthy choices. This framework asserts that human behaviors are shaped by all aspects of the individual's social systems (Boulton et al., 2018; Kregg-Byers, 2014). Furthermore, its multilayered approach recognizes the social system in which the individual interacts and highlights the importance of their influences on their behavior (Glanz et al., 2015). This multilayered approach consists of five hierarchical levels: individual, interpersonal, organizational, community, and public policy (Hayden, 2009). However, the main focus of this study centered on personal, interpersonal, organizational, and community. A more detailed explanation of each level is provided in Chapter 2.

This multilayered approach was applied to this study to inform and provide theoretical support to explain the significance of social support and any implications of its dimensions on the older adult's behavior and choices (see Goldberg & Mawn, 2015). It was essential to showcase the links between emotional, instrumental, and informational support and the social-ecological model framework's individual, interpersonal, organizational, and communal levels (Dai et al., 2016; Hayden, 2009). Therefore, this framework was the foundation for framing questions that stimulated meaningful and detailed interactions on food insecurity and its varying role within their social support. These questions also focused on the participant's social support systems and the functions of these relationships that have shaped their experiences, perceptions, and behavior. By creating open-ended questions grounded in this conceptual framework, I identified factors and influences that shape the attitudes and meanings given to these experiences and perceptions of food insecurity on participants' behavior and social support.

## **Nature of the Study**

In this study, I used a generic qualitative approach. The generic approach was appropriate because it focused on the subjective opinions and attitudes of older adults with first-hand experience facing food insecurity and varying levels of social support. The generic qualitative design gives the flexibility that a researcher who does not identify with a specific philosophical assumption needs to explore a selected phenomenon and allows researchers to incorporate established qualitative data tools (Kahlke, 2014; Percy et al., 2015). It allowed me to focus on understanding the target population's description and perspectives on their worldviews and experiences without the set guidelines within

other qualitative approaches (see Patton, 2015). The generic qualitative design was also suitable for this study as it gave me the ability to expand prior knowledge on the phenomena being studied by focusing on the actual experiences of the older adult, their descriptions, meanings, real-life opinions on food insecurity, and social support (see Percy et al., 2015).

Qualitative research is used by researchers in studies that seek to understand the viewpoint of participants, their experiences, and the meanings they associate with the phenomenon being studied (Hammarberg et al., 2016; Teherani et al., 2015). This approach was appropriate for this study as it allowed me to explore the meanings many older adults associate with food insecurity, how it shapes their social networks, and why it occurs in their lives. The exploratory inquiry of qualitative research allows researchers to propose social change and reform for the target population based on its findings.

Conversely, quantitative research is used to quantify participants' opinions and behaviors and produce numerical data for analysis; however, this approach was not appropriate for this study as its main focus is an inquiry into a participant's experiences in their natural settings (see Teherani et al., 2015).

Due to this design's core focus, semistructured interviews were necessary for the research as I elicited details through informal and specific questioning that provided context on situations that shape the individual's experiences with food insecurity (see Patton, 2015; Ravitch & Carl, 2016). Snowball sampling was used as it allowed me to focus on the characteristics of the population of interest and match the inclusion criteria created for the study (see Daniel, 2012).

Snowball sampling is a method used by qualitative researchers to recruit participants who are hard to identify or locate but can be recommended by participants who have volunteered in the study (Ungvarsky, 2020). Therefore, it is advisable to use a larger size (Bellamy et al., 2016; Percy et al., 2015); thus, I selected a sample size of 12 participants to ensure that this representation was achieved and data saturation was satisfied (see Percy et al., 2015). Transcription, open coding, and thematic analysis were used to code, analyze, and understand the data. Once the data were collected from all participants and saturation was reached, data were transcribed to provide an opportunity to become familiarized with the data. Transcription was done manually and using *Rev.com*, a professional transcription service.

#### **Definitions**

The following terms were used throughout this study.

Food insecurity: An individual or household's limited or uncertain ability to maintain or access adequate safe, nutritious food supplies (USDA, 2019).

*Metro area*: A core area that consists of a dense population with less populated surrounding communities and shares economic and social ties (U.S. Census Bureau, 2020).

Social support: The availability of others to provide tangible assistance, friendship, care, feelings of love, and empathy (Davis et al., 2016; see also Williams et al., 2004).

Vulnerable populations: These are groups or communities who experience higher risks of being disadvantaged because of economics, culture, geography, age, ethnicity, and other factors (Harmon, 2020).

## **Assumptions**

During this study, I had vital assumptions. First, I assumed that all participants selected had firsthand experiences facing food insecurity. In addition, I presumed that their responses were honest and truthful and accurate reflections of their experiences with the phenomenon of interest given.

## **Scope and Delimitations**

The study's scope also focused on the target population's perceptions, thoughts, and opinions on their experiences with food insecurity and its role in their social support networks. One delimitation was the study's target population and target location to adults 65 years and older who had firsthand knowledge of food insecurity and were located in communities within the metro area of Broward County in Florida. This target population was selected because of the limited research that offers insights into this target population's viewpoint and their declining social interactions within their social networks (see Xiao et al., 2018).

Another delimitation of the study was excluding the theoretical framework, Bronfenbrenner's ecological systems theory. This framework and its five environmental systems were considered but were not feasible due to its focus on human development and the environment (see Bronfenbrenner, 1979).

In this study, I sought to achieve potential transferability through reflexivity by incorporating reflective journals and thick descriptions (see Korstjens & Moser, 2017). I provided thick descriptions of the research's setting, sample and sample size, inclusion and exclusion criteria, and interview procedures.

#### Limitations

Qualitative studies have methodological and design limitations that influence their findings and transferability (Patton, 2015). While the researcher has no control over these limitations, trustworthiness must be established to increase transferability (Ravitch & Carl, 2016). This study may not achieve transferability in its findings due to participant recruitment, researcher bias, and limitations in the research design (see Burkholder et al., 2016).

Researcher bias is always a potential limitation. My own experiences may have influenced the analysis and interpretations of the data and impact transferability. These biases include selection bias and question-order bias (Galdas, 2017). Therefore, I express any biases particularly and explain the steps that were to be taken to remove these biases. Despite the freedom to use a combination of established set methodological approaches in generic qualitative studies, limitations exist in the researcher's application in conducting the study (Percy et al., 2015). There is the potential for the researcher to influence the transcribed data unduly and unknowingly include misunderstandings in field notes. To minimize these limitations, as the researcher, I conducted member checking and audit trails to increase validity.

#### **Significance**

The findings of this study addressed a gap identified regarding food insecurity and the opinions, perceptions, and reflections of older adults regarding their experiences facing food insecurity and its role in their social support networks (see Davis et al., 2016). This study was instrumental in offering firsthand data on the weaknesses and strengths of current interventions, programs, and policies that supported this target population (see Weirich & Benson, 2019). These insights were valuable and highlight the need for evaluations and potential redesigns of these interventions, programs, and policies to incorporate the importance of social support networks.

Community organizations such as Meals on Wheels America and Feeding South Florida could benefit from this study as it could provide them with current findings that challenge their existing programs to further integrate the leading roles that food insecurity plays in their older clients' social support networks. Buys and Locher (2015) highlighted the need for more studies and data to aid in evaluating and improving current or alternative programs. These findings from the research are necessary so government agencies such as The Department of Elder Affairs and Area Aging on Aging and Disability Resource Centers could be enabled to identify current areas of limited focus, which require more resources and support (see Buys & Locher, 2015). The older adult communities of the metro area of Broward County could also benefit from new innovative interventions geared towards a holistic approach to food insecurity, focusing primarily on the perceived impact of food insecurity on social support and improving these experiences.

This study upholds potential widespread implications for the public health sector, social agencies, and community organizations. By focusing on the perceptions and opinions of older adults who have firsthand experiences with food insecurity, these implications may lead to widespread changes and promote positive social change within the more senior adult communities. Each sector is encouraged to integrate their insightful feedback into tailored resources to address social isolation and loneliness in these communities.

#### **Summary**

Food insecurity continues to affect many older adult communities in the United States. Despite numerous efforts to combat this social issue, households and individuals continue to experience its impact on their lives. In this study, I aimed to understand and interpret the meanings and perceptions that older adults attached to their experiences with this phenomenon of interest and its role in their social support. By understanding these worldviews and identifying factors contributing to these views, communities can be better equipped to manage food insecurity and increase focus and integration.

A generic qualitative design was used to gather a broad range of these perceptions and meanings to offer insights into the perceived impact of food insecurity on social support networks. Semistructured interviews were used to collect data and were conducted in person. Thematic analysis was used to analyze the data and offer insights into emerging themes to present its findings.

A more detailed review of the literature in Chapter 2 focuses on food insecurity, older adults, and social support. It also provides a comprehensive review of the

conceptual framework and the social ecological model and addresses its explanations of the various social support and social networks.

#### Chapter 2: Literature Review

#### Introduction

Food insecurity has become one of the fastest-growing social challenges in vulnerable communities across the United States and globally due to ongoing global issues (Fanzo, 2020; World Food Programme, 2020). Furthermore, this increasing social problem and its effect on diverse and vulnerable communities remains a primary concern for countries regardless of their wealth and development. Current statistics from organizations such as Feeding America, Meals on Wheels America, and USDA have stated that roughly 5 to 10 million older adults face food insecurity within these communities despite social programs currently addressing this issue (as cited in Coleman-Jensen et al., 2019; Feeding America, 2020). However, due to the severe impact of the COVID-19 virus on the older adult community across the United States, this figure has risen sharply as older households experience food insecurity (Feeding America, 2020; Meals on Wheels America, 2020).

In Florida, Savelle and O'Neal (n.d.) reported that approximately 10% of older adult populations struggle to provide daily meals for themselves, thus elevating food insecurity. Local agencies such as Feeding South Florida (2018) and Second Harvest (2020) have reported that a higher percentage of older adults are experiencing food insecurity due to closures of food sources and congregate meal sites, senior centers, stay-at-home and shelter-in-place measures, and daily curfews caused by the pandemic. These data confirmed that food insecurity continues to be a public health concern and has shown that it has the components to be an expanding social problem. Although the

current data on food insecurity continues to be alarming, researchers have found that critical factors such as social support systems are advantageous to households experiencing this social challenge (Burris et al., 2019; Frith & Loprinzi, 2018; O'Kane, 2016).

Research has shown that when social support systems are available to most older adults, it helps reduce food insecurity and combats this issue's adverse health and social effects (Mao & Han, 2018; Xiao et al., 2018). Therefore, this key factor becomes increasingly paramount for older adults experiencing these effects and increasing their dependence (Jih et al., 2018). These social systems have played a significant role in their daily lives as they help provide various forms of support and offer valuable assistance to the older adult in meeting their needs (Kim & Lee, 2019). Although the significance of social support systems in older adults' lives continues to be researched, the need to consider food insecurity's role in these support systems has become paramount. Therefore, I explored the experiences of adults aged 65 years and over who face food insecurity and the role it plays in their social support systems.

In constructing this literature review, I focused on reviewing relevant data from current research on the role of food insecurity in older adults' lives, their experiences, and their role in their social relationships. This review highlights the gap in the current research on the link between food insecurity and social support systems. This literature review has five main sections and the rationale for the study. In the first section, I discuss the literature search strategy. The second section focuses on the conceptual framework, its levels, and the rationale for selecting this framework. The following section addresses

food insecurity in the United States, including Florida, the metro areas, and the older adult community. The impact of food insecurity on public health and government programs is also explored. Section 5 focuses on the social determinants of food insecurity. It also focuses on the importance, dimensions, and implications of social support and older adults. The review concludes that the rationale for conducting this study and summary showcases the literature gap on food insecurity and its role in older adults' social support systems.

## **Literature Search Strategy**

The literature search strategy consisted of gathering peer-reviewed journal articles through academic search engines, searching internet databases, and locating relevant data through professional public health organizations and nonprofit organizations' webpages. I accessed these academic search engines through the Walden University library and Google Scholar. I also searched EBSCO databases such as ScienceDirect, Sage Journals, ProQuest, Taylor and Francis Online, and Thoreau Multi-Database Search. These professional and nonprofit sources include World Health Organization, USDA, FAO, Feeding America, and Meals on Wheels America. Key terms used to search each database were *food insecurity, social support, social relationships, older adult, role, social support networks, stigma,* and *vulnerable populations*. I also used multiple government-related webpages such as the USDA, the U.S. Census Bureau, and the webpages of Meals on Wheels and Feeding America for information related to food insecurity.

#### Theoretical Framework: Social Ecological Model

The study focused on exploring the experiences of older adults with food insecurity and the role food insecurity played in their social support systems. This study was influenced by the concepts of Bronfenner's (1979) ecological theory and McLeroy et al.'s (1988) ecological model of health promotion. Even though each pioneer focused on different approaches to researching human behavior, they both discovered that individuals are intrinsically embedded in their larger social systems (McLeroy et al., 1988). Bronfenner's theory concentrates on the individual, life development, and the interrelationship with the environment and behavior. Alternately, McLeroy et al. (1988) proposed a framework that focused on the individual and the social factors within the environment that influence their health behaviors and choices. These factors provide indepth explanations to create interventions geared toward behavior changes (McLeroy et al., 1988).

Additionally, each framework presents structures or levels that focus on the different influences within the social environment that directly impact relationships with the individual. Bronfenner's (1979) ecological model focuses on the impact of the structures embedded in the individual's ecological environment throughout their developmental phases as they transform and grow. These structures are identified as *microsystems, mesosystems, exosystems, macrosystems*, and *chronosystems*. In contrast, McLeroy et al.'s (1988) social ecological model focuses on the individual and the influences that shape their behavior while incorporating autonomy and its role in the individual's choices and behavior (as cited in Boulton et al., 2018; see also McLeroy et

al., 1988). This framework presents five levels that aim to showcase the environmental factors that influence interactions and support systems and eventually effect change in health behavior for the individual (Cheong et al., 2019). Intrapersonal factors, interpersonal process/primary groups, institutional factors, community factors, and public policy are the levels used in McLeroy et al.'s ecological model.

The concepts of these influential frameworks have provided the background for the social-ecological model framework used in this study. This conceptual framework proposes that everybody's behavior, perceptions, and choices are molded by factors within the social environment and are influenced by different social interactions and support systems (Campbell et al., 2017; Cheong et al., 2019; Nyambe et al., 2016). This approach offers a clear understanding of these factors that impact the connections and interactions between individuals and their social systems (Boulton et al., 2018). These influences center mainly on social support, attitude, belief system, self-sufficiency, and interrelationship with social institutions (McLeroy et al., 1988; Nyambe et al., 2016). While the factors often work independently, they form a multilevel approach that is the basis of this social-ecological model framework (Andress & Shiri, 2017). This multilayered framework acknowledges the social systems in which the individual operates and seeks to establish the interplay among each hierarchy and their impact (Caperon et al., 2019; Hayden, 2009).

#### Levels

This multilevel approach of the social-ecological model is applied to show the social support systems' significance to the older adult and their shared influences on the

older adult's behavior, perceptions, and choices. Each level highlights direct factors or social systems within individuals, the community, and the family in which the individual interacts and the interplay of these influences that have impacted the development of the individual and, subsequently, the individual's impact on these systems (Campbell, 2017). These levels should emphasize and clarify the interdependence of the social systems and the older adult within the environment (Bronfenner, 1979). This conceptual framework consists of five levels: individual, interpersonal, organizational, and community (Bronfenner, 1979; Lopez-Neyman & Warren 2016; McLeroy et al., 1979).

#### Individual

In this hierarchical level, the older adult determines and directs their interactions and connections with other persons based on their belief system and attitudes (Andress & Shiri, 2017). Bronfenner (1979) suggested that these attitudes and values help mold the individual's characteristics and development as they navigate social systems that focus on their gender, culture, income level, life skills, and behavior. As older adults navigate relationships and social networks within their social environment, their knowledge of each person's influences and role within these systems steered their behavior and perceptions (Boulton et al., 2018). This information is beneficial to the older adult as their viewpoints continue to be shaped based on their experiences and their reliance on the social support within these social systems (Lopez-Neyman & Warren, 2016). As their physical abilities diminish, these traits become more important to the older adult as they navigate food insecurity within these social systems.

### *Interpersonal*

During the lifespan development, older adults experience several social systems that provide social support and connections throughout various phases in their lives (Gilleard & Higgs, 2016). This hierarchical level highlights the importance of the individual's immediate social environment as its influences the shape the gradual shift of the individual's behavior, beliefs, and personality (Andress & Shiri, 2017). At this level, social support systems such as family, friends, and coworkers play a significant role in the older adult's life (Lopez-Neyman & Warren, 2016; Salihu et al., 2017). In addition, these systems aid in shaping the individual's gradual social identity and develop social roles throughout the lifespan (McLeroy et al., 1988). As a result, the importance of these social systems is shown in the provision of emotional and instrumental support as the older adult ages (Boulton et al., 2018). Therefore, these relationships remain intact throughout the older adult's lifespan and evolve into new social roles as the older adults become more reliant on this social support (Boulton et al., 2018).

## **Organizational**

The organizational level incorporates social organizations responsible for providing formal and informal rules that govern society and social regulations that promote behavior changes (Cheong et al., 2019). At this level, the cultural and environmental influences of the individual and the interpersonal levels play essential roles as the older adult interacts with these social organizations, including churches, grocery stores, and community clubs (Campbell, 2017): Cheong et al., 2019). Most importantly, the individual is influenced by these rules and regulations that act as

guidelines for acceptable social standards within society and social groups (McLeroy et al., 1988). They also help older adults navigate formal and informal social support systems through behavioral and social expectations that promote well-being and provide traditional support (McLeroy et al., 1988). As older adults age, interactions with these social organizations become increasingly important as they experience physical limitations and less informal social support systems (Mao & Han, 2018).

On the other hand, at this level, the individual's choices and behavior may also be impacted by the limitations and restrictions that may arise due to the enforcement of these social regulations and rules (Hagger et al., 2020). The cultural values and knowledge about the formal and informal rules within the society have continued to influence the older adults' interactions within these social systems and their social identity (McLeroy, 1988). As a result, the individual experiences gradual changes to their behavior and adopts these changes into their social relationships (Salihu et al., 2017).

#### **Community**

The influences of the community organizations and the built environment at the community level have promoted norms that play a significant role in setting standards for socially acceptable attitudes and cultural values (Hagger et al., 2020). At this level, the older adult does not experience direct influences as involvement in community activities is often minimal (Dai et al., 2016). However, as older adults rely more heavily on their social support systems, the built environment is vital in defining any long-term changes in behavior and characteristics (Sadarangani et al., 2020). The collaboration and relationships between community organizations are also a component in the older adult's

well-being and influence the individual's interactions with the built environment (McLeroy et al., 1988). Therefore, the older adult has more access to community resources, subsequently increasing their awareness and addressing their needs through instrumental and informational support (Hagger et al., 2020). As a result, this increased reliance is led by the older adult's need to adapt to their limitations and use the built environment and its resources for social support within defined boundaries (Sadarangani et al., 2020).

#### Rationale

The social-ecological model concepts theorize that an individual is impacted by the influences of each level of their social environment. This impact provides the foundation for the individual's choices, behavior, relationships, and interactions (Kaur et al., 2020). Due to the implications of food insecurity, the older adult's ability to retain these social support systems impacts their overall well-being and potentially reduces barriers. This theoretical framework offers context that points out that current interventions and policies that address food insecurity continue to lack focus on the environmental influences that shape the older adult's social support systems.

Additionally, the social-ecological model framework applied to the study as its foundational contexts provided the background for older adults' experiences with food insecurity and the interplay between food insecurity and social systems. The influences of Bronfenner's (1979) theoretical frameworks and McLeroy et al. (1988) highlight the importance of independence and the ability to make choices in the older adult's life within the social-ecological model. These frameworks show the gradual loss of autonomy

and showcases social systems' relevance in older adults' lives and how these support systems shape their experiences (Hagger et al., 2020). It also highlights the level of social support that each level could provide the older adult and the importance of these provisions to the overall impact of food insecurity in their lives. The social-ecological model framework also shows that environmental factors such as stigma and access impact the interactions between the older adult and their social systems and guides food insecurity in these social support systems. Using the social-ecological model framework levels in this study contributed to highlighting these stigmas and perceptions about food insecurity and social support systems.

## **Food Insecurity in The United States**

The prevalence of food insecurity among communities in the United States continues to skyrocket amid a global pandemic, an economic crisis, and a rise in poverty levels (Leddy et al., 2020). Relevant organizations and government agencies have sought to define food insecurity in a setting that highlights its relevance to public health or its impact on households due to its determinants. Agencies such as Feeding America (2020) and Meals on Wheels America (2020) have defined food insecurity as a public health issue that affects more than 30 million households across the United States. Similarly, Ziliak and Gundersen (2019) and Healthy People (2020) explained that food insecurity is considered reduced or unreliable access to a safe, nutritious, and dependable food supply because of socioeconomic status, physical limitations, racial/ethnic challenges, and other resources needed to maintain a healthy lifestyle.

Furthermore, the USDA (2020) provided additional categorization of food insecurity as it states that it can be viewed as two categories that show the level of impact on the household. *Low food security* is one of the two categories. It focuses on families who report a low occurrence of irregular meals and have experienced a higher access rate to food supplies but are still facing food insecurity (USDA, 2020). In contrast, households that share the frequent occurrence of insufficient meals and a continuous lack of access to reliable food sources are considered to be experiencing *very low food security*, the second category of food insecurity (Coleman-Jensen et al., 2020; Healthy People, 2020).

On the other hand, the USDA (2020) has also listed two additional categories to explain food security ranges further. *Marginal and high food security* are categories used to indicate that households within these ranges maintain higher and comparable food access levels and meet dietary needs than those at low and very low food security levels. Even though this study does not focus on these categories in defining food insecurity, they are essential distinctions in understanding the severity of food insecurity within communities across the United States. Organizations such as Feeding South Florida (2021) and the US Census Bureau (2021) have utilized these categories in their research on the impact of the COVID-19 virus on households' meal deficit within communities across the state.

Current research has found that every year food insecurity has continued to affect all population subgroups within the United States (Coleman-Jensen et al., 2020; Feeding America, 2020; Holben & Marshall, 2017; Leddy et al., 2020). In 2019, Coleman-Jensen

et al. (2019) stated that households with children, women, older adults, and racial and ethnic groups living in diverse and low-income communities accounted for the highest percentages of food insecurity. Specifically, the data reported that households with children living with single parents, mainly single mothers, accounted for the highest percentage (28.7%) among all families with children (USDA, 2020). In comparison, households with racial and ethnic population groups accounted for the second-highest percentage (19.1%) within the United States (USDA, 2020). Gundersen (2021) states that these population groups have continued to be the most impacted and have reported the highest increases in affected households as they grapple with the pandemic's effects.

On the other hand, Tarasuk et al. (2019) and Leung et al. (2020) reported that different population groups, notably higher socioeconomic and higher-income groups, may face food insecurity but frequently are underreported due to stigma. Additionally, these groups have experienced the effects of the pandemic and have experienced extreme declines in their access to food resources and income levels due to closures, unemployment, and safety measures put in place to mitigate the spread of the coronavirus (Wolfson & Leung, 2020). Despite community agencies such as Feeding America and local food pantries continuing to aid these communities, the most affected subgroups - older adults- continue to report that they frequently experience food insecurity throughout the year (Healthy People, 2020; Wolfson & Leung, 2020).

Furthermore, understanding these contributors was necessary as these households struggle with food insecurity due to various determinants. Specifically, the households that continue to be affected by food insecurity experience social determinants such as

socioeconomic status, unemployment, discriminatory practices, physical limitations, geographical location, and stigma (FAO, 2020; Holben & Marshall, 2017). Fernandes et al. (2018) and Hunt et al. (2019) explained that the level of influence that each determinant has on these households determined the category of food insecurity they faced and their health and well-being. Also, the characteristics of each determinant of food insecurity demonstrated the need for changes and evaluation of policies that met these contributing challenges that impacted households and food availability (Drammel et al., 2019). Overall, the impact of these determinants on members of the affected families has gradually re-defined the contributors of declining health factors to include food insecurity as a major determinant (Drammel et al., 2019; Jackson et al., 2019; Leung et al., 2020).

Current public health research showed that the most significant outcomes of food insecurity are malnutrition and hunger, as well as other adverse health outcomes, thereby impacting the individual's health and well-being (Ganhao-Arranhado et al., 2018; Garcia et al., 2018; Koyanagi et al., 2019; Pooler et al., 2019). Leung et al. (2020) stated that the increased risks of lower dietary quality and dietary intake caused by unreliable and frequently unhealthy food sources were side effects that increased the chances of malnutrition and hunger. Likewise, the increased risk to physical functionalities also impacted the older adult's frailty and decreased their ability to maintain regular meals and access steady food resources (Jackson et al., 2019).

Similarly, as a determinant of health, food insecurity also exacerbated chronic conditions such as kidney disease and diabetes, increasing the likelihood of progression

in the older adult. As a result, the repercussions of the high health risks caused by food insecurity on members of impacted households continued to be experienced throughout the families, the communities, and the country (Eun Sum et al., 2019; Lloyd, 2019; Lund et al., 2018). However, these health risk factors were considered impactful to the potential long-term public health costs and utilization that challenged the country's healthcare systems as well as social programs managed by government agencies and private community organizations (Eun Sum et al., 2019; Lloyd, 2019; Lund et al., 2018).

### **Food Insecurity Among Older Adults in the United States**

In the United States, older adults are increasingly becoming one of the highest subgroups that experience food insecurity. Agencies such as Feeding America, Meals on Wheels America, and USDA have stated that roughly five (5) to ten (10) million older adults since 2017 have faced or are currently facing food insecurity within communities across the United States (Coleman-Jensen et al., 2020; Feeding America, 2020; Meals on Wheels America, 2020). Similarly, Ziliak and Gundersen (2019) highlighted the steady growth in the rate of older adults who have begun to experience food insecurity within their households since 2017 despite finding that the overall food insecurity rate was declining in 2019. On the other hand, Gallagher (2020) found that population groups, including the older adult population in Florida, underreported the impact of food insecurity on their lives. Their research discovered that households were missing more meals than reported or estimated, thus highlighting a possible higher rate of underreported affected households (Gallagher, 2020). Additionally, this information shows that despite existing social programs and interventions within these communities,

food insecurity continues to grow (Coleman-Jensen et al., 2020; Feeding America, 2020). Overall, this continued growth among the older adult population was consistent across geographical location, socio-economic status, race, and age, highlighting the concerning trend of social isolation, loneliness, and rising hunger and malnutrition (Ziliak & Gundersen, 2022).

Older adults experience daily challenges as they grapple with evolving lifestyles, financial constraints, changing households, and declines in social relationships (Pooler et al., 2019). These challenges can eventually catalyze significant shifts in most older adults' health, income level, and social support systems (Jih et al., 2018). Schwartz et al. (2019) explained that physical limitations reduce the individual's ability to adequately maintain reliable and regular food supplies to retain their nutrition, well-being, and health when older adults age. Moreover, functional impairments such as mobility and frailty would reduce meal preparation and the amount of food intake for the older adult due to problems with standing and fine motor skills (Jackson et al., 2019). Similarly, most older adults face financial limitations due to physical impairments, loss of income, financial illiteracy, and rising healthcare costs (Miller et al., 2020; Tucher et al., 2020).

Additionally, these financial constraints increased the vulnerabilities that older adults experienced and increased food insecurity in their households (Miller et al., 2020). These physical and financial limitations also affect most older adults' interactions with social support systems, as they cannot effectively maintain their social visibility (Morris et al., 2019). The reduction in social interactions within social support systems compounded these limitations experienced by the older adult. It contributed to a further

decline in nutrition and increased the risk of food insecurity (Tkatch et al., 2017). These conditions highlighted the heightened vulnerability of many older adults who relied on these social support systems while facing food insecurity (Mao & Han, 2018; Xiao et al., 2018).

In 2020, the COVID-19 health pandemic exacerbated food insecurity worldwide and impacted older adults' lives and households within their communities in the United States (Coleman-Jensen et al., 2020; Feeding America, 2020; Wolfson & Leung, 2020). Nagata et al. (2020) explain that in the United States, the pandemic's effects have caused increases in adverse economic impacts. In fact, in communities across the country, there were business and school closures, closures of adult daycare centers and senior centers, as well as measures taken by local and state governments, including social distancing, stay-at-home, and shelter-in-place mandates (Gundersen, 2020; Jaarsveld, 2020; Sepulveda-Loyola, 2020). While these measures were used to combat the spread of the COVID-19 virus, their implementation had more severe consequences for older adults due to the population group's higher susceptibility to the virus. It increased the risk of adverse outcomes (Sepulveda-Loyola, 2020). Additionally, Wolfson and Leung (2020) stated that the impact caused by these measures was significant in vulnerable communities that have continued to experience socioeconomic and racial disparities. Overall, these communities, particularly the older adult community, have suffered significant financial and psychological hardships due to the pandemic, which has also fostered the association of higher risks of adverse health outcomes for many older adults who have been experiencing food insecurity (Wolfson et al., 2020; Wolfson & Leung, 2020a).

Although it is essential to consider the financial repercussions of the COVID-19 health pandemic on the older adult community, it is also vital to consider its social outcomes (Trad et al., 2020). The measures taken to curb the COVID-19 health pandemic within society have led to a drastic reduction in social networking and companionship within the older adult community (Pantell & Shields-Zeeman, 2020). In addition, the restrictive measures and guidelines of social distancing, mask-wearing, and shelter-in-place have escalated the risks of social isolation, loneliness, and depression among most older adults (Wolfson & Leung, 2020a). Furthermore, these measures impacted the provision of tangible aid and emotional support as social support systems could not visit in person or offer personal support. These social consequences affect the social support systems that provide older adults stability, resources, and assistance (Pantell & Shields-Zeeman, 2020). As a result, the loss of access to these systems caused by these measures exacerbated the older adult's food insecurity risks and amplified adverse health outcomes for the older adult (Trad et al., 2020).

# **Food Insecurity in Florida**

The USDA (2020) reports that between 2017 and 2019, approximately 10.5% or over 35 million households in the United States faced food insecurity. In Florida, Feeding America (2019) and Florida Health (2020) state that an average of 13% or over 3.5 million residents faced food insecurity in 2019. Based on these findings, Ziliak and Gundersen (2019) report that households with children account for the highest rate of

food insecurity within the state; however, approximately 8.5% of the older adult population also face food insecurity in their communities across the state. According to the researchers, the number of older adults who experience food insecurity has continued to rise, particularly in low-income, diverse, and rural communities (Burris et al., 2019; Ziliak & Gundersen, 2019). Additionally, Feeding America (2020) reports that Hamilton County, a rural county in the state, has recorded the highest food insecurity rate, while St John County, a metropolitan area, has the lowest.

On the other hand, Gallagher (2020) discovered that the current statistics on the state's food insecurity rate had not considered the number of individuals who underreported the impact of food insecurity on their households. Furthermore, Gallagher (2020) also stated that this underreporting is reflected in vulnerable populations and households from all groups within all counties in Florida. Therefore, the number of older adults experiencing food insecurity may be higher than previously reported. This increase has become a significant concern for the state and local legislative and community organizations and relevant government agencies and should be addressed (Florida Health, 2020).

The reality of food insecurity is evident in every county in the state of Florida.

Ziliak and Gundersen (2019) theorized that the state continues to experience food insecurity within all its communities and counties as residents struggle to adequately provide for themselves and their households. According to the US Census Bureau (2020), older adults are considered the largest population subgroup in the state. They are regarded as one of the most significant contributors to the state's financial viability. This trend

persisted as the state's older adult population size continued to grow due to aging demographics and external migration (Gillen & Dwyer, 2018). Therefore, these facts have strengthened current research findings that these environmental factors would influence the state's public health system and healthcare costs as food insecurity continues to be a significant issue within these communities (Burris et al., 2019). Overall, as households, particularly older adults across the state, continue to grapple with changes to their health, finances, and social support systems, government agencies and nonprofit organizations have sought to implement social programs and interventions to meet these needs (Feeding America, 2020; Gillen & Dwyer, 2018; Savelle & O'Neal, 2018).

The current COVID-19 health pandemic has brought serious ramifications for older adults living in Florida as they experience the adverse effects of the measures in place for control (Coleman-Jensen et al., 2020; Feeding America, 2020). These side effects have increased social isolation and loneliness among older adults. Family members, friends, companion care, and caregivers have maintained social distancing or are restricted to electronic visits (Trad et al., 2020, Wolfson & Leung, 2020). On the other hand, these overwhelming consequences can have far-reaching outcomes for older adults, their families, and the communities in which they live (Pantell & Shields-Zeeman, 2020). While numerous agencies had reported that the rates of food insecurity dropped in Florida in 2019, older adults continued to experience food insecurity at higher rates than in previous years (Ziliak & Gundersen, 2022). This rate increased tremendously in 2020 as a direct result of the pandemic.

Moreover, this data also revealed that the long-term effects of the COVID-19 health pandemic impacted the livelihood of older adults who relied on others for support or to generate income through social interactions and employment (EClinical Medicine, 2020; Pantell & Shields-Zeeman, 2020). Therefore, the COVID-19 health pandemic highlighted the vulnerabilities of older adults who continually struggle to remain food secure and rely on social support systems (Trad et al., 2020). It has also showcased that social support systems remain essential in older adults' lives (Trad et al., 2020).

### **Food Insecurity in Rural Areas in the United States**

Food insecurity continues to exist in communities across the United States; however, the risk of food insecurity rises higher in rural and non-metropolitan areas (Burris et al., 2021). According to the US Census Bureau (2021), rural areas in the United States are considered any populated, housing, and territorial area outside urban areas. Ziliak and Gundersen (2022) reported that the higher rates of food insecurity in rural areas in the US continue to show a trending pattern that highlights the gap in acquiring and maintaining food sources between these areas and metro areas.

Additionally, the evidence highlighted by Ziliak and Gundersen (2022) and USDA (2020) showed that in the years 2001- 2019, there has been a gradual increase in the rate of food insecurity among communities in rural areas, particularly the Southern and Midwestern areas. Furthermore, in the United States, Feeding America (2021) points out that rural communities account for approximately 60% of the country's entire counties. Therefore, these facts emphasize the high impact of the determinants of food insecurity,

leading to the more significant occurrence of food insecurity and its effects on these communities (Eun Shim et al., 2019).

In rural America, households face unique challenges that impact their ability to reduce the risk of food insecurity and make difficult choices for their well-being (Eun Shim et al., 2019). Additionally, these challenges are representative of the social determinants that provide a greater risk for the occurrence of food insecurity. Therefore, households in rural areas struggle to find safe, affordable, and readily available food supplies due to a lack of transportation, financial resources, socioeconomic status, mobility issues, income, and food deserts (Weirich & Benson, 2019). As a result, most older adults resorted to less nutritional and expensive food sources to satisfy their dietary needs and minimize hunger (Rabbitt et al., 2017). Therefore, these households faced higher risks of chronic health outcomes and increased physical and mental functionalities (Coleman-Jensen et al., 2017).

In rural areas, most of its older residents experience limitations in finding reliable and financially viable employment opportunities, thus leading to financial constraints that impact their buying power (Weirich & Benson, 2019). Older adults who live in these areas face struggles in accessing formal higher educational institutions or choose to honor family obligations in maintaining their family businesses (Stolz et al., 2017). Also, Farrigan (2020) explained that poverty through a lack of income is expected when the individual cannot adequately access and attain formal education throughout the lifespan development. Therefore, food insecurity increased due to the individual's inability to purchase and maintain safe and nutritious food supplies (Rabbitt et al., 2017).

Communities in rural areas were often the casualties of limited or no access to public or private transportation infrastructure. They were considered a factor in raising the risk of food insecurity (Shirgaokar et al., 2020). Households, particularly older adults, were primarily impacted by this limitation as it affected their ability to visit local food retailers or farmers' markets to purchase food supplies (Shirgaokar et al., 2020). If the individual cannot provide regular meals because of a lack of food supplies and transportation options, it increases the possibility of rising hunger and food insecurity (Eun Shim et al., 2019). Additionally, due to the onset of functional limitations in the older adult, the individual's dependency on others for their transportation needs increases (Hickman & Chang, 2016). Therefore, this dependency grows in rural areas as older adults often live in homes in low, dense locations and may struggle with mobility issues (Wood et al., 2016). Meanwhile, service providers within these areas have improved the alternate transportation options, and the older adult continues to struggle to meet these unmet travel needs as often the food retailers are in areas considered outside of the travel zone (Wood et al., 2016).

A household's socioeconomic status within communities in rural areas contributed to the increased risk of food insecurity. Shahar et al. (2019) pointed out that a family who faced inequalities that included gender, ethnicity, marital status, poverty level, and race frequently reported harmful efforts in maintaining health status and combating hunger. Furthermore, these inequalities acted as barriers for the older adult to access programs such as the government-funded SNAP, Medicaid, and food pantries due to waiting lists and not meeting their eligibility criteria (Smith & Trevelyan, 2019). As a result, older

adults face higher healthcare costs and fewer opportunities to purchase regular food supplies (Shahar et al., 2019).

Rural areas presented numerous challenges for the older population as they faced difficulty accessing reliable food supplies. Regions with limited access to supermarket and superstore chains, grocery stores, and restaurants were considered food deserts (Rhone, 2019). These food deserts often indicate the community faces spatial distance issues, income level, transportation infrastructure concerns, and reliable and affordable food supplies (Rhone, 2019). While rural areas can be found in any city, they are usually prone to factors such as population size, unemployment, education, income, and location (Karpyn et al., 2020). This analysis is evident in rural areas. Smith and Trevelyan (2020) reported that the adult population group of 65 years and older in rural America is approximately 17% of its overall population. It shows that rural communities still maintain a lower percentage of the nation's population. Therefore, income levels varied, spatial distance was more significant, and unemployment and retirement were higher among this population group in these areas (Farrigan, 2020). When food supplies were unavailable and unreliable to the older adult, the individual had to make tough decisions on where to purchase their food supplies, the distance to travel to other areas to access these stores, and the affordability of the smaller stores that are available (Rhone et al., 2017).

Functional limitations and mobility issues increase the food insecurity rate for older adults living in rural areas (Myers et al., 2016). Older adults with functional limitations face unique challenges as they try to maintain their daily needs (Myers et al.,

2016). Food insecurity is exacerbated when the older adult cannot complete simple tasks such as meal preparation and maintaining food supplies due to increased frailty and mental decline (Hickman & Chang, 2019). Older adults face other struggles in upholding these tasks due to their spatial distance from others and food sources (Myers et al., 2016). Additionally, mobility issues impact food security as the older adult cannot continue providing personal transportation needs, increasing the individual's dependency on unreliable transportation sources (Wood et al., 2016). As a result, these declines in physical and cognitive capabilities affected the older adult's autonomy and increased reliance on family members or community support systems to meet these needs (Jackson et al., 2019).

## **Food Insecurity in Metro Areas in The United States**

Across the United States, households in rural and metro areas have reported experiencing food insecurity, but studies have found mixed results. USDA (2020) stated that families in rural areas have reported higher food insecurity rates than households in metropolitan areas outside of urban cities. Furthermore, this data also showed that the more populated regions of the country, particularly the Northeast, had the lowest food insecurity rates (Meals on Wheels America, 2020; USDA, 2020). In contrast, research also shows that households in metropolitan areas in urban cities have reported higher rates than households in rural areas (Feeding America, 2020; USDA, 2020). These findings have shown that geographical location continues to be one of the social determinants of food insecurity (Weirich & Benson, 2019).

Metropolitan areas are considered large core areas with large populations, mainly over 100,000 residents, that connect with adjoining communities to integrate core economic and social activities (US Census Bureau, 2020). Older adults who live within these metropolitan areas can have a higher access rate to food sources due to the higher level of economic activities and infrastructure within these communities (Shim & Hwang, 2019). However, older adults also experience limitations within these metro areas because of higher living expenses, healthcare expenses, and inequalities (Craveiro et al., 2016). These experiences are proven by the reported higher food insecurity rate within these metropolitan areas within the city (USDA, 2020). Therefore, the older adult cannot adequately provide regular meals and maintain a nutritious diet due to unstable financial challenges and decreased social interactions with social support systems (Sengupta, 2016).

In metropolitan areas across the United States, communities have experienced a shift in their population as older adults are relocating to independent or assisted adult communities and nonmetro or rural areas (US Census Bureau, 2021). While this data shows that older adults are focused on maintaining their autonomy and social environment, it also indicates more significant risks for increasing food insecurity. Ziliak and Gundersen (2019) reported that older adults who lived alone had functional impairments and relied on social programs with higher food insecurity rates. Therefore, older adults unable to complete meal preparations and uphold reliable and frequent food supplies had difficulties maintaining a nutritious diet and increased risk of food insecurity in their households (Hunt et al., 2019). Additionally, these older adults face inequalities

based on gender, race, and income level. They may face challenges accessing social programs, providing meals, and combating rising health conditions in these areas (Farrigan, 2020). When food supplies were unavailable and unreliable to the older adult, the individual had to make tough decisions on where to purchase their food supplies, the distance to travel to other areas to access these stores, and the affordability of the smaller stores that are available (Rhone et al., 2017).

Functional limitations and mobility issues increase the food insecurity rate for older adults living in rural areas (Myers et al., 2016). Older adults with functional limitations face unique challenges as they try to maintain their daily needs (Myers et al., 2016). Food insecurity is exacerbated when the older adult cannot complete simple tasks such as meal preparation and maintaining food supplies due to increased frailty and mental decline (Hickman & Chang, 2019). Older adults struggle to uphold these tasks due to their spatial distance from others and food sources (Myers et al., 2016).

Additionally, mobility issues impact food security as the older adult cannot continue providing personal transportation needs, increasing the individual's dependency on unreliable transportation sources (Wood et al., 2016). As a result, these declines in physical and cognitive capabilities affected the older adult's autonomy and increase reliance on family members or community support systems to meet these needs (Jackson et al., 2019).

### **Impact of Food Insecurity on Public Health**

Across the United States, food insecurity results from a household's inability to maintain regular meals and a nutritious diet due to inconsistent access to reliable food

supplies (Food & Agriculture, 2019). As a result, this inconsistency in food intake eventually impacted the health and well-being of the individual and their household as their nutrient intake lessened and led to hunger and malnutrition (Burris et al., 2018; Hessol et al., 2017). This depiction, along with current research on public health and food insecurity, showed that hunger and malnutrition were direct consequences of food insecurity (Ganhao-Arranhado et al., 2018; Fernandes et al., 2016; Koyanagi et al., 2019; Lund et al., 2017). Additionally, when these direct effects appeared, adverse health outcomes began to manifest, leading to increased risks and chronic health conditions (Sadarangani et al., 2020; Pooler et al., 2018). These improved health outcomes escalated healthcare costs for these households as their healthcare utilization increased significantly, particularly within low and very low food security ranges (Bhargava & Lee, 2016).

Consequently, these associated costs that can be incurred exacerbate the individual's risks of higher financial costs that could potentially impact their lives (Garcia et al., 2018). As these older adults focused on utilizing the healthcare system to treat and manage these chronic health conditions, they faced incremental health expenses such as prescription management and inpatient costs (Berkowitz et al., 2018; Berkowitz et al., 2019). As a result, older adults relied on available social insurance programs such as Medicaid and Medicare to meet these financial obligations (Garcia et al., 2018; Himmelstein, 2019; Sonik, 2018). Therefore, these incremental costs had a ripple effect on the older adult, the community, and the country (Garcia et al., 2018). Specifically, most senior adult households that experience food insecurity are considered part of low-

income, diverse, and vulnerable communities (Gundersen et al., 2017). Therefore, the financial burden of rising healthcare costs within these communities impacted and further expanded the current cost burden on healthcare systems and government spending (Ganhao-Arranhado et al., 2018; Lloyd, 2019). Berkowitz et al. (2019) found that most older adults' reliance on these social programs to access public healthcare systems increased the budget cost to fund these programs. Additionally, healthcare systems grapple with increased demand for their resources due to this enhanced utilization through admissions, readmissions, and emergency room visits despite their efforts to invest in a value-based care system and address the underlying issues of food insecurity (Health Research & Education Trust, 2017). Overall, this increased utilization and expenditure within the healthcare system became a growing issue as providers and administrators assessed the long-term consequences of implementing long-term transformation goals (Garcia et a., 2018).

### **Government- Related Programs**

Food insecurity continues to be a growing public health and social issue highlighting the unique challenges the older adult communities face. There have been concerted efforts to address this issue through numerous interventions and programs administered by government agencies, healthcare systems, community organizations, and nonprofit organizations (Parks et al., 2020). The most utilized social programs that are geared toward eliminating hunger and malnutrition are the SNAP, the Senior Farmer Market Nutrition Program, and the Home Delivered Program/Congregate Meal Program (Parks et al., 2020; Weirich & Benson, 2019; Wilson, 2017). All these safety-net

programs were created under the Older Americans Act of 1965 and administered by the Older Americans Act Nutrition Program and Administration on Aging (Administration for Community Living, 2020). Keith-Jennings et al. (2019) explain that these programs, mainly the SNAP program, have successfully combatted food insecurity at some level through providing resources for acquiring food supplies and sufficient daily meals.

Although these programs have provided benefits to many households, who have been able to experience improvements from improved diets and provide regular meals, the issue of food insecurity continues to grow within these communities (Bergia et al., 2020).

Older adults living in low-income and diverse communities have benefitted from some of these safety net programs' benefits. Each program offers supplements geared towards tackling basic needs that have been affected mainly by financial constraints (Oemichen & Smith, 2016). According to the USDA (2020), the SNAP program is administered by the USDA and operated by each state to address food-insecure households' nutritional needs across the United States, particularly those considered low-income families individuals. In addition, this program offers either direct cash assistance or a qualified set food budget through an EBT card to purchase nutritious and vital food supplies from vendors within the community (USDA, 2020). Even though this program is considered a success within communities, eligibility, and adequate benefits continue to impact its achievements (Cohen, 2019; Keith-Jennings et al., 2019).

The Senior Farmer Market Nutrition Program is a vital safety net program that seeks to aid older adults in increasing their daily consumption of fruits and vegetables, essential to their daily nutrition intake (USDA, 2020; Wilson, 2017). Older adults,

particularly those categorized as low income and over 60 years old, can shop at local farmers' markets and roadside stalls to purchase nutritious and healthy fruits and vegetables using coupons (Department of Elder Affairs, DOEA, 2020). This program is funded through the Farm Bill and is administered by the USDA and the state (Benefits, 2020; Wilson, 2017). Although these programs have reported successes, older adults experience delays due to waitlists, reduced funding, and not being eligible, increasing nutritional risk and adverse health outcomes (Keith-Jennings et al., 2019). Additionally, these safety net programs also struggle with older adults' concerns about stigma, meeting the eligibility criteria, low monetary benefits, and lack of information (Bergia et al., 2020). These shortcomings continued to impact low-income and vulnerable communities and affect participation if evaluations and improvements are not considered (Dean et al., 2020).

Nutrition programs for older adults within communities across the United States are operated by nonprofit organizations, which seek to provide regular meals for households that have experienced declines in their capabilities (DOEA, 2020). These programs are operated by organizations such as Feeding America and Meals on Wheels America and provide safe and nutritious meals to older adults who are considered homebound or struggle with mobility and accessibility (Feeding America, 2020; Meals on Wheels America, 2020). Older adults are given weekly meals delivered by staff and volunteers and serve as additional social support for those who require limited companion care (Bergia et al., 2020; Vieira et al., 2017). In addition, there are also mobile pantries, the senior grocery program, food banks and the SNAP outreach that are available and

provided by Feeding America networks in each state (Feeding America, 2021). While these programs have reaped success, older adults continue to underutilize these benefits because of misinformation, geographical location, long waitlists, and stigma (Pak & Kim, 2020). In addition, Rappaport (2017) explains that these programs are also impacted by any changes to their funding depending on the country's economic climate and congressional decisions. Overall, these programs are beneficial to households in communities across the country in their provision of modest benefits, and their limitations show that social support systems continue to be an essential part of mitigating food insecurity (Bhargava & Lee, 2017; Dean et al., 2020; Wilson, 2017).

## **Social Determinants of Food Insecurity**

Food insecurity has been recognized as a social issue prevalent within older adult communities in the United States. The association between food insecurity and the reduced nutrient intake of older adults highlights the factors that influence food insecurity in these households and communities (Leroux et al., 2018; Pooler et al., 2018). Research has shown that food insecurity determinants reflect the prevalent risks within these communities as households struggle with maintaining health and well-being (Craveiro & Alves, 2016; Pirrie et al., 2020). Therefore, it is crucial to understand determinants of socioeconomic status, geographical location, functional limitations, race, and stigma and their role as factors that influence food insecurity in these households.

#### **Socioeconomic Status**

Findings from current studies have found that poverty and education are primary factors in the growth of food insecurity within the older adult community regardless of

gender (Burris et al., 2019; Wilson, 2017). Poverty is considered the result of the individual or the household's low-income level and determined their ability to purchase food supplies to adequately provide meals and address nutritional needs (Darin-Mattsson et al., 2017; Lund et al., 2018). Furthermore, this inability to maintain safe and reliable food access and living expenses led to food insecurity and negatively affected their health and social status (Drammeh et al., 2019). This inability was especially evident in the older adult community. Many were unable to maintain employment due to mobility and frailty issues and had experienced a reduction in their income levels, thus leading to the rapid manifestation of food insecurity (Gundersen et al., 2017). The level of education of an individual was associated with the rate of food security that the household experiences (Lund et al., 2018). Additionally, a household that had achieved a higher level of educational attainment maintained consistent and reliable food resources and prevented the rapid decline of health (Drammeh et al., 2019). In contrast, an individual with a lack of education had a lower chance of achieving adequate employment and experienced difficulties sustaining reliable food supplies (Darin-Mattson et al., 2017; Nagata et al., 2015).

Also, the level of education of the older adult was a determinant of the individual's level of household income. Older adults who had higher educational attainment were more likely to earn a higher income level within their household, thus reducing the risk of poverty (Farrigan, 2020). Therefore, an older adult who lived in a metro area and achieved a bachelor's degree throughout their lifespan was able to earn a higher median income than an older adult who had a high school diploma (Farrigan,

2020). As a result, the older adult would presumably be able to utilize all the widely accessible food sources, maintain regular food supplies, and remain food secure (Coleman-Jensen et al., 2020). However, this older adult could also be affected by gender differences and race, compounding the risk of food insecurity and chronic health conditions (Stolz et al., 2017).

### **Geographical Location**

Research has shown that geographical location has been a barrier to households struggling to maintain continuous access to safe and reliable food supplies (Cheong et al., 2019; Lloyd, 2019; Lund et al., 2018). Families in rural regions frequently find it challenging to locate a consistent food environment that offers quality and variety of food choices (Ko et al., 2018). This insight is mainly due to the smaller food resources available within these environments and the spatial availability of food sources that impede access (Campbell et al., 2017). These households also face additional challenges in food pricing and accessibility that can impact their ability to maintain and achieve a healthy diet (Campbell et al., 2017). They also face transportation barriers as their reliance on alternate transportation increases, further reducing food availability (Wood et al., 2016). This barrier is further challenged as larger food stores are often in other areas, impacting accessibility and reliability (Wood et al., 2016).

Households within urban and metropolitan communities experience more stable food environments because of more food source availability and the higher level of quality and variety in food sources found in these settings (Ko et al., 2018). However, these households also face food disparities as they struggle with maintaining healthy diets

due to the abundant availability of unsafe and non-nutritious food sources in these environments and the low cost of food supplies (Knorr et al., 2018). Additionally, individuals struggle with higher living costs and competitive markets, impacting their ability to purchase nutritious food and maintain their dietary needs (Knorr et al., 2018). While many households continue to achieve food security, many individuals experience food insecurity as they face challenges due to their income level and the communities in which their homes are situated (Hunt et al., 2019).

### **Functional Limitations**

As older adults age, their functional abilities begin to decline, and their proficiency in performing daily tasks is affected (Petersen et al., 2019). Food insecurity can increase functional limitations, affecting the older adult regardless of gender; physical and daily activities such as bending, standing for long minutes, bathing, cooking meals, or holding a cup become difficult (Petersen et al., 2019). As a result, Chang & Hickman (2018) stated that older adults began to lose autonomy and rely on social support systems to support and maintain daily food access. The onset of functional impairments also increases due to the older adult's inability to utilize food supplies and maintain daily meals (Pooler et al., 2019). Therefore, older adults cannot meet personal transportation needs or continue to be physically active to meet their daily needs (Pooler et al., 2019). Mobility issues increase the risk of food insecurity as the older adult must continue to rely on social support systems for transportation, assisting with daily living, and meal preparation (Chang & Hickman, 2019). Furthermore, functional limitations also impact the older adult's ability to maintain social relationships and reduce the older

adult's ability to interact with others, thereby leading to isolation and a lack of emotional and instrumental support (Hickman & Change, 2016). Consequently, the older adult could no longer maintain financial stability or adequate employment to remain food secure.

#### Race

Racial disparities in communities across the country have contributed to the growth of food insecurity within racial and ethnic households (Gundersen, 2020a). Feeding America (2020) found that non-white households accounted for above fifteen percent rate (15%) of the country's overall poverty rate. This data showed that race was closely connected to the other determinants as an individual of color was challenged with poverty, lack of education, and low-income levels (Odoms-Young, 2019). These disparities are manifested in the social and economic opportunities available to racial and ethnic communities and usually create a ripple effect in their ability to adequately maintain living conditions (Petersen et al., 2019). Therefore, these disadvantages created an environment that fostered food insecurity as the individual struggles with a lack of income opportunities and limited food accessibility to guarantee regular meals (Odoms-Young, 2019). Additionally, these communities also face racial and systematic discrimination that impacts their ability to be eligible for community programs as well as impacting income opportunities that can help their households (Morales et al., 2020). This discrimination is manifested in racial pay gaps, lack of adequate access and availability of reliable and affordable food sources, and denial of housing opportunities,

which increases the risk of food insecurity and chronic health conditions (Morales et al., 2020).

### Stigma

In a society that regards food aid as an embarrassment or shame, it is crucial to understand the impact of stigma on food insecurity. Social stigma is the prejudiced views and attitudes of social groups or individuals about characteristics such as food, aging, and mental health (Purdam et al., 2016). While this type of stigma negatively influences the older adult to request assistance through social programs and nonprofit food banks, the preconceived notions of the older adult are more impactful (Wang & Jeon, 2020). An older adult who viewed food insecurity as an embarrassment or a shameful act resisted seeking assistance from social support systems (Purdam et al., 2016). As a result, the older adult experienced a decline in health amid an increase in irregular meals and available food resources (Pak & Kim, 2020; Oemichen & Smith, 2016).

In communities across the United States, culture, fear, and age have guided older adults' perceptions of functional impairments and the stigma of aging (Oemichen & Smith, 2016). These biases impacted the older adult's willingness to seek assistance from healthcare systems and increased the chances of food insecurity in their households (Bird & McClelland, 2016). Overall, these prejudices and shame directed the individual's willingness to seek aid from available social support systems or social programs to address and mitigate the onset of food insecurity (Pak & Kim, 2020).

## **Social Support and Older Adults**

The adverse effects of food insecurity can create additional challenges for older adults, thus increasing their dependence on social support systems (Jih et al., 2018). Social support is considered the resources and assistance provided to the older adult through their social networks as they try to maintain balance and cope with changing dynamics (Burris et al., 2016). Additionally, social support provides valuable resources that benefit the older adult as it assists with daily activities, provides companionship, and maintains the older adult's interpersonal communications with their social support systems (Davis et al., 2016; Mao & Han, 2018). Therefore, social support is the core benefit of older adults' social relationships and interactions within kinship or non-kinship networks (Pieroth et al., 2017). When social support is limited or nonexistent, it further compounds an older adult's physical and financial limitations, contributes to poor nutrition, and increases the risk of food insecurity (Morris et al., 2019). As a result, Davis et al. (2016) point out that social support is vital to the older adult and is usually offered in various forms. While each dimension of social support plays a significant role in older adults' lives, emotional, instrumental, and informational support offer the most valuable assistance to the older adult (Jih et al., 2018). Even though social support is vital to older adults, it can affect their psychological levels and significantly impact their experiences and perceptions of food insecurity (Adams et al., 2016; Liu et al., 2019).

Social support systems play an important role in modifying the risk of food insecurity for older adults and are usually comprised of individuals who play different roles in their lives (Kim & Lee, 2019). In older adult's life, social support is provided

through various social networks, mainly consisting of friends, family, and their broader community (Jung et al., 2019). Each social network worked conjointly to help the older adult cope with barriers and instability that present setbacks to their well-being (Jih et al., 2018). The social-ecological model highlights the connections between the older adult and the five levels of social support systems that influence and impact their lives. While social support systems provide impressive benefits, they also present negative consequences for older adults.

### **Emotional Support**

Emotional support is one of the core dimensions of social support, as it offers the most intimate care from close social networks. Emotional support gives older adults valuable and more intimate consideration from persons within their inner circle as they give empathy, trust, advice, and a sense of self-worth (Davis et al., 2016). This support is generally provided by friends, family members, and close acquaintances (Amoah, 2019; Mao & Han, 2018). Furthermore, Amoah (2019) explains that emotional support is paramount to older adults as their reliance on this support's characteristics benefits their mental health and well-being. Emotional support is an essential aspect of aging as the older adult can cope with the various changes that may occur during the aging process (Tarrence, 2019). However, this support dimension appeared to be the most accessible, but Mao & Han (2018) stated that some older adults often experience low emotional support due to living alone. While access to emotional support varies according to socioeconomic status, this dimension of support was paramount to reducing social isolation, depression, and loneliness (Tarrance (2019).

# **Instrumental Support**

Instrumental support is another dimension that provides the older adult with tangible assistance that helps mitigate food insecurity. Hickman and Chang (2016) explain that older adults with functional limitations experience an elevated risk of food insecurity due to declining physical functioning. Therefore, instrumental support is fundamental to the individual as it would provide beneficial assistance with essential tasks such as meal preparation and maintaining food resources (Jackson et al., 2019). Instrumental support usually gives tangible aid by helping with daily living activities, procuring food supplies, providing financial assistance, and assisting with accessibility needs (Burris et al., 2019; Koller & Dutra-Thome, 2018). Older adults typically receive this type of support from their family, friends, caregivers, and professionals who assist them periodically (Liu et al., 2016). This type of instrumental support reduces the older adult's access to food and aids in providing daily or regular meals that encourage food security (Jung et al., 2019).

## **Informational Support**

Informational support is the most practical provision of care for older adults. This social support dimension offers practical and communal aid to the individual through factual information or advice that acts as a guide for utilizing community services or managing essential situations (Koller & Dutra-Thome, 2018). Informational support helps older adults make important decisions or need to make vital changes to their lifestyle or daily regime (Pillemer & Holtzer, 2016). Older adults receive this support from community members, family, and friends (Davis et al., 2016). Since this type of

support is necessary for helping an older adult cope with solving problems and accessing resources, community-based professionals are often the primary source (Liu, 2019). Additionally, older adults benefit positively from this social networking as they can gain new information on safety net programs, community resources, and other assistance within the built environment (Pillemer & Holtzer, 2016).

### **Implications**

Social isolation and loneliness are consequences of low social support in older adults' lives (Finlay & Kobayashi, 2018). These risks highlight the importance of social support systems in this population group and should be a vital part of any programs that aid these households (Gardiner et al., 2018). Social support provides companionship, tangible aid, and valuable information for older adults as their participation in their social networks and social relationships diminish (Burris et al., 2019). Additionally, each social support system's functions significantly provide the older adult with the emotional support, guidance, and essential services needed to remain positive, active, and retain self-worth (Pieroth et al., 2017). However, when these systems were absent in their lives, Finlay & Kobayashi (2018) point out that these shortcomings have shown that they can impact older adults' well-being and health by compounding the issue of food insecurity in their lives. As older adults age and their physical functionalities begin to decline, social support is considered one of the most beneficial resources that minimize the risks of food insecurity, social isolation, and loneliness (Rosas et al., 2019).

The availability of social support for older adults has shown positive impacts on their health and well-being. However, social support systems can also negatively impact

the older adult. The benefits of social support have minimized additional symptoms of depression in older adults and have allowed them to maintain continued levels of social interactions with family members, friends, and other members of their social support systems (Liu et al., 2016). Alternatively, social support can also increase symptoms of depression and withdrawal as older adults resent the loss of autonomy and the perceived intrusion into their independent lives (Ahn et al., 2016). Frequently, most older adults are fiercely independent and regard any reliance on their social support networks as demeaning and stressful, leading to psychological and emotional turmoil (Wolfson et al., 2021). When these stressors occurred, the individual became withdrawn and depressed, and any improvement in decreasing any predictors of food insecurity was lost (Wolfson et al., 2021). The stigma and emotional turmoil accompanying food insecurity also influenced older adults' interactions with these social support systems. These stigmas of food insecurity are usually focused on facing the blame on those who experience this issue and putting derogatory labels on individuals who utilize safety net programs and nutrition programs (Purdam et al., 2016). As a result, these stressors lead to further declines in these systems and reduced interactions with friends, family, and their communities (Davis et al., 2016).

While research has shown that social interactions are usually positive, it must be noted that older adults also experience negative social interactions. These negative interactions presented failures in offering positive support, creating internal stressors, and increasing rejection and abuse (Rook, 2016). As a result, adverse health effects increased, and the older adult's ability to maintain daily living activities was affected (Rook, 2016).

Overall, social support has many functions, and its availability through support systems can impact the risk of food insecurity and determines the role it plays in the older adult's life.

# **Contributions to Food Insecurity**

The prevalence of food insecurity is reliant on environmental influences that can be altered through determinants such as social support. Many studies have shown that the availability of social support within older adult communities has embedded elements that can aid in reducing the risk of food insecurity (Burris et al., 2019; Chang & Hickman, 2018; Mao & Han, 2018; Pieroth et al., 2017; Rosas et al., 2019). Primarily, when older adults have the availability of emotional, instrumental, and informational support, their access to reliable, safe, and regular food supplies and meals increases and is maintained (Leddy et al., 2020). Furthermore, Davis et al., 2019 pointed out that each dimension of social support was usually reinforced by the older adult's social support systems and allowed the older adult to prolong the benefits of social relationships and social networks. As a result, the range of food insecurity within households that continued to experience high social support levels with support systems was expectantly low or marginal (Coleman-Jensen, 2020).

Social support systems assist older adults in combating adverse health conditions and the overall effects of functional limitations. As older adults age, their functional abilities would eventually decline, increasing their dependency on social support systems (Hickman & Chang, 2016). Their reliance on these systems was often in the form of assistance with activities of daily living, meal preparation, transportation, and

companionship (Jackson et al., 2019). Additionally, when older adults can maintain high nutritional diets, their overall health status and quality of life improve. As a result, the risk of food insecurity would be lower, and its effects would be diminished in these households.

Although social support has shown positive benefits to older adults' experiences with food insecurity, there are adverse effects that are often overlooked. Rook (2016) explains that older adults often struggle with the unintended consequences of social support as they struggle with food insecurity issues. Therefore, older adult carries hidden emotions of low self-worth and a loss of autonomy due to increased instrumental and emotional support (Rook, 2016). Social support systems could also undermine older adults and disregard their emotions, leading to adverse cognitive health and conflict (Pilcher & Bryant, 2016). Consequently, the older adult would showcase signs of withdrawal, stress, and depression and increase the risk of food insecurity and adverse health conditions (Mao & Han, 2018). These emotional and mental health consequences highlight that social support can unintentionally negatively affect the older adult, thus increasing additional risks.

Additionally, the stigma and negative perceptions of food insecurity can also influence the contributions of social support. The country's negative perceptions of food insecurity have impacted the utilization of safety net programs provided through social support systems within the community (Wilson, 2016). These stigmas have also shaped the older adult's motivations for sharing health data and any changes to their functional abilities. However, social support systems such as family, friends, and professionals can

counteract these perceptions by reinforcing functional support, especially emotional support, to ensure that the older adult remains connected and reaps these support systems' benefits (Pilcher & Bryant, 2016).

### Summary

Food insecurity has been proven to be a very multifaceted and evolving issue in this country. This issue has affected every population group regardless of socio-economic status, geographical location, race, ethnicity, and gender. Research findings have shown that this comprehensive issue has had long-lasting effects on the individual, the community, and the country. An in-depth look at the current literature has shown that although there has been an increase in studies focusing on food insecurity, there is a limitation of comprehensive research on older adults and food insecurity.

In fact, there are numerous studies on food insecurity that have focused on quantitative methodology as researchers sought to understand the statistical data on varying topics within this multifaceted issue. This methodological focus has highlighted the actual impact that this issue has on households and communities and the effectiveness of programs and interventions geared towards the mitigation of food insecurity. However, these findings highlight the need to provide insights into the role that food insecurity plays in the lives of those who have faced or are currently experiencing food insecurity. Although there is literature on social support and older adults, its limitations show that more qualitative research is needed to explore the perceptions of food insecurity and its role in the older adult's social support.

This generic qualitative study explored the experiences and perceptions of older adults aged 65 years and older who face food insecurity and the part it plays in their social support systems. Even though food availability is more consistent in metro areas such as Broward County, Florida, there were still challenges that the older adult faced in addressing food insecurity in these areas. Due to the existing limited research, this study has the unique opportunity to explore these multifaceted experiences of older adults within this age group regardless of social class, race, ethnicity, and income level. The utilization of the conceptual framework, socio ecological model (McLeroy et al., 1988) provided the context needed to understand the social support systems, their role in the older adult's life, and how food insecurity impacted their fluidity. By addressing this gap, this study potentially offered justifications for modifying the focus on food insecurity to the inclusion of interventions that ramped up the availability of functional support for older adults. By increasing the focus on first-hand experiences and perceptions, community leaders and professionals evaluated, improved or created interventions and campaigns that included a broader focus on positive social systems for older adults and eliminating associated stigma.

The risk of food insecurity in households across communities in the United States have long-term economic, social, and health-related implications. These implications presented opportunities and challenges for the government and organizations that create social programs to address this issue. As older adults grapple with gradual changes to their lives, each determinant of food insecurity posed severe challenges and further exacerbated the risk of food insecurity (Tucher et al., 2020). These increased risks

presented challenges to the healthcare sector as they seek to reduce and address the increasing hospitalization rates of older adults who face food insecurity (Bhargava & Lee, 2017). This increase in healthcare spending also created challenges to the public health sector as the budgetary costs attached impacted the social insurance programs that are available for older adults. The social stigma and perceptions associated with food insecurity also negatively impacted some older adults' participation in safety net programs and interventions, thus increasing the risks of food insecurity and health-related challenges (Cohen, 2019; Wilson, 2016).

In addressing food insecurity, various programs have been implemented to assist in combating this issue. These programs are mainly centered around the provision of food items through coupons and EBT cards, delivery of cooked meals, and congregate dining; as a result of this, addressing at least some of the determinants of food insecurity (Bird & McClelland, 2015; Gundersen et al., 2017; Oemichen & Smith, 2016). While these programs have shown success in some areas, there are still shortcomings that must be addressed. Program administrators and other interested parties must address these shortcomings through a comprehensive viewpoint to provide solutions that adequately address a multilayered social issue.

In Chapter 3, includes an in-depth summaries and justifications on the selection of the qualitative methodology and the generic research design. A presentation of the data collection methods, the sampling strategy, and the data analysis methods is also included.

## Chapter 3: Research Method

Food insecurity within the older adult communities continues to be an increasing concern across the United States. As consequences such as hunger continue to impact these communities, the need to focus on the role of the nutritional risk on their social support has become more paramount (Na et al., 2018; Ziliak & Gundersen, 2022). The purpose of this generic qualitative study was to explore the experiences of adults aged 65 years and over living in the southeast region of Florida facing food insecurity and how social support plays a role in food insecurity. In addition to contributing new data on the social issue of food insecurity, this study offers new insights into the perceptions that older adults have on the impact of the nutritional risks on their social support networks. In this chapter, I provide detailed explanations on the selection of the generic qualitative methodology and its utilization in exploring the research topic of food insecurity by applying the core concepts of the theoretical framework, the social ecological model framework. Additionally, I offer justifications on the research design, role of the researcher, methodology, data analysis, issues of trustworthiness, and the study's ethical procedures, and I conclude with a summary.

## **Research Design and Rationale**

Food insecurity continues to be a growing social problem that affects the lives of all population groups within the society. In this study, I explored the experiences and perceptions of older adults through the following research question: What are the experiences of adults above the age of 65 living in metro areas of Broward County who are facing food insecurity, and how does social support play a role in food insecurity?

The continued lack of focus on the multifaceted impact of food insecurity on the social systems of older adults requires an emic perspective and an exploratory research approach. Therefore, I used the generic qualitative research design. In research, there are three research methods or approaches: qualitative, quantitative, and mixed methods (Wright et al., 2016). In this study, the inductive approach or the qualitative research method was used to allow me to explore food insecurity and explain its social implications on the older adult. Qualitative research aids researchers in understanding query through a humanistic or idealistic approach (Busetto et al., 2020; Hammarberg et al., 2016). Therefore, qualitative research was used to gain insights into people's behavior and their realities through their experiences, perspectives, and meanings with social phenomena (see Busetto et al., 2020; Hammarberg et al., 2016).

Based on the qualitative research approach, the choice of the research design used depends on the specific guidelines, rules, and frameworks that match the researcher's philosophical viewpoints (Abutabenjeh & Jaradat, 2018). This philosophical orientation also guides the researcher through decisions on assumptions, methods of inquiry, data collection, and analysis (Abutabenjeh & Jaradat, 2018; Burkholder et al., 2016) explained that qualitative research designs offer descriptive observations and thematic analysis to provide a realistic understanding of the phenomena being studied. Each qualitative research design supports a synergy of all the components needed to investigate, analyze, and eventually find answers (Creswell & Creswell, 2017). Therefore, choosing a research design depends on the philosophical assumptions, the nature of the study's research question, and the strategy of inquiry chosen (Wright et al., 2016).

There are multiple designs within the qualitative research methodology. There are five traditional designs as well as other uncommonly used designs such as the newly established generic design, feminist, critical, and sociolinguistic (Burkholder et al., 2016; Kennedy, 2016). Each qualitative research design is defined by its philosophical assumptions and methodological processes and is guided by interpretivism and constructivist paradigms (Creswell & Poth, 2017. These paradigms provide the researcher with guidelines and rules for the methods and procedures for sampling, data collection, and data analysis (Kivunja & Kuyini, 2017).

While the commonly used research designs are case study, narrative, grounded theory, phenomenology, and ethnography, I focused on the generic qualitative design (see Tomaszewski et al., 2020). The generic qualitative approach is one of the qualitative methodologies used to explore participants' experiences, worldviews, and meanings on social phenomena (Kennedy, 2016). While each traditional qualitative approach adheres to specific ontological and epistemological traditions that guide its methodological applications, the generic qualitative approach is different (Bellamy et al., 2016; Kahlke, 2014). The generic qualitative approach in research is used by researchers who choose research topics and questions outside the traditional philosophical viewpoint (Kahlke, 2014). Therefore, this approach does not adhere to a specific ontological and epistemological tradition nor applies a specific methodological viewpoint to conduct research (Kennedy, 2016). This flexibility in research allows the researcher to use multiple elements from established qualitative methodologies and exclude any of the methodology's guidelines and rules in the study (Percy, 2015). The generic qualitative

design is shaped by the participant's descriptions, grounded by its theoretical framework, and guided by its research questions (Burkholder et al., 2016).

Therefore, in this generic qualitative study, I applied a generalized structure of the overall qualitative research approach and adhered to a general integration of the theoretical framework, the research question, the data collection methods, and the analysis. This plan allowed me to focus on collecting and analyzing the participants' perspectives and meanings through their experiences to find emerging themes and insights. These flexible but structured guidelines offered a framework for me to explore the older adult's experiences and perceptions without being bound by the rules of specific philosophical and epistemological assumptions (see Burkholder et al., 2016).

The use of data collection techniques such as interviews and surveys aided me in eliciting details that provided context on the individual's experiences with food insecurity and its role in social support. I was able to apply excluded analysis tools to analyze the data and gather interpretations. Additionally, the interpretation and analysis of these experiences provided themes that offer insights into their worldviews and meanings attached to the phenomena.

Case studies are used to investigate a complex phenomenon that uniquely impacts a participant, a group, or an event and allows the researcher to conduct an in-depth, multifaceted study (Creswell & Poth, 2017). Furthermore, researchers who use the ontological and epistemological orientations of this research design are able to explore complex issues and conduct multiple observations within a real-world perspective (Heale & Twycross 2018). Narrative studies are used by researchers seeking to investigate the

meanings that participants attach to social phenomena through stories of their experiences (Tomaszewski et al., 2020). Additionally, narrative researchers use a social constructivist paradigm and subjectivity to analyze and interpret the collected data to understand the participant's lived experiences (Bruce et al., 2016).

Next, grounded theory was considered as it is one of the primarily used traditional research designs that allows the researcher to generate theoretical development on the phenomenon that is not widely studied or explained (Tie et al., 2019). Additionally, the grounded theory design incorporates an inductive analysis that allows the researcher to analyze and construct a theory that emerges from the data collected (Timonen et al., 2018). The phenomenology design allows the researcher to build a study on the lived experiences of participants who share similar experiences with a phenomenon (Williams, 2021). Furthermore, this research design focuses on the perceptions, meanings, and feelings of the *what* and *how* of their experience with the phenomenon (Neubauer et al., 2019). However, based on my research questions, the general qualitative approach was the best fit.

#### The Role of the Researcher

In qualitative research, the researcher is considered the primary instrument in collecting real world data from participants in the study (Roger et al., 2018). The researcher is also responsible for protecting the participant's data and safeguarding their privacy and confidentiality. Therefore, I needed to ensure that the study maintained credibility, dependability, and transferability (see Burkholder et al., 2016; Ravitch & Carl, 2016). There were no conflicts of interest, as I had no relationship or previous

interactions with any participants involved in this study. This step was taken to ensure that there was no imparted bias in the study.

The efforts to minimize potential bias through reflexivity in the qualitative study was aided through my use of field notes and memos (see Roger et al., 2018). These methods of reflexivity allowed me to provide thick descriptions for the study and offer additional data on the participants' observations (see Phillippi & Lauderdale, 2017). I maintained member checking and triangulation to ensure that these strategies helped to preserve the study's trustworthiness (see Burkholder et al., 2016; Ravitch & Carl, 2016). In qualitative research, member checking aids the researcher in establishing the credibility of the data collected and analyzed and authenticating trustworthiness (Birt et al., 2016). Candela (2019) explained that member checking increases believability as the researcher shares the findings of the study with the participants of the study or allows the participants to review transcripts to ensure that the data collected are accurate or need additional information (Candela (2019). Due to the sensitivity of the phenomena, member checking was an effective tool in establishing credibility and participant confidence in the study. In this study, each participant was allowed to validate the transcripts of the interviews and provided feedback on the study's findings through telephone communications.

Triangulation in qualitative research is used to confirm and establish dependability and credibility in qualitative research (Burkholder et al., 2016). This strategy utilizes multiple sources for verification of the study's findings. Researchers can use sources such as various methods of data collection, numerous theoretical

perspectives, and multiple data sources within a single data collection method (Natow, 2020. In this study, interview sessions for each participant took place at different time slots, and data were collected using interviews and surveys. In addition, I used field notes and memos to write research insights before, during, and after data collection. These strategies helped to ensure the trustworthiness of my ability to achieve validity and reduce bias (see Burkholder et al., 2016; Ravitch & Carl, 2016). I also included a reflexive journal containing personal records and self-reflection on the methodological decisions made for each study section.

## Methodology

# **Participant Selection Logic**

The target group for this study was older adults aged 65 and older who were recipients of home delivery and congregate meals, were residents of the southern region of Florida, and identified as food insecure by family members, residents, professionals, and community organizations. This population was chosen due to their increased vulnerabilities and limitations in accessing safe food supplies and maintaining nutritional and balanced meals (see Sengupta, 2016; Ziliak & Gundersen, 2019). I used a sample size of 12 participants to ensure that an in-depth engagement was maintained between the participant and myself, which allowed me to achieve data saturation. I maintained confidentiality for each participant by eliminating any identifying names and addresses within any recorded data.

# Sampling Strategy

Snowball sampling was used to recruit and select participants within the communities of Broward County, Florida, who were currently facing food insecurity. Snowball sampling is a technique that researchers use to locate additional participants through the initial participants selected through the selection criteria (Naderifar et al., 2017). Participants were asked to suggest persons they thought met the research's selection criteria within their communities or social groups (see Ungvarsky, 2020). Snowball sampling is very effective when the sample pool of the target population is limited and more participants are needed (Naderifar et al., 2017). Because food insecurity was considered a sensitive topic within the community, locating older participants was challenging, mainly due to the ongoing pandemic experienced in the United States at the time.

In this study, the inclusion criteria included residents aged 65 years and older, recipients of home delivery and congregate meals, residents of Broward County, those identified as food insecure by Broward County agencies, and local religious charity organizations. These participants also reported as aging in place, living with family members, and being clients with home delivery meal organizations for more than 3 months. Participants who were not fluent in the English language and recipients of SNAP benefits were excluded from participant selection. These exclusion criteria were chosen to ensure that the participants selected were not receiving any aid from government social programs or did not meet the requirements for qualifying for these benefits and spoke my primary language. This population pool was recruited through churches, religious charity

organizations, and organizations such as Meals on Wheels South Florida and Feeding South Florida. I contacted these organizations via telephone to ask for assistance and permission to post and circulate recruitment flyers to members of their recipient list. I used email contacts with professionals involved in senior care or members of the community and local churches to gain leads on potential participants who fit the inclusion criteria. Once the participant responded to the posted flyers, I sent a letter of invitation and an informed consent form that provided details on the study, their role, and their rights as a participant.

# Sample Size

Generic qualitative studies focus on participants who share similar experiences with the phenomenon being studied, and the researcher is allowed to determine the length of engagement with each participant (Bellamy et al., 2016). While this qualitative approach does not adhere to any specific ontological and epistemological traditions, I applied traditional qualitative rules to this study and selected a small sample size.

Additionally, I used a small number of participants to support this in-depth study sufficiently. The selected sample size allowed me to engage each participant fully and gain extensive information relevant to the phenomenon and satisfy data saturation (see Mason, 2010; Vasileiou et al., 2018). Therefore, I selected a sample size of 12 participants based on the participant inclusion and exclusion criteria. Due to the in-depth procedures of qualitative studies that require more in-depth engagement, Creswell (1998), as cited in Mason (2010), explained that a small sample size of five to 25 participants is

ideal for these studies. Meanwhile, Burkholder et al. (2016) suggested that a sample size of five to 15 is sufficient to collect extensive data and reach data saturation.

#### Data Saturation

Data saturation in qualitative studies includes goals that the researcher seeks to achieve in the study to ensure that any emerging data discovered during the interview sessions are collected and carefully analyzed. Fusch and Ness (2015) suggested that data saturation is often achieved when the researcher has collected enough rich and thick data and not necessarily when the researcher has exhausted all resources, and no new information can be retrieved from the data collected. Qualitative researchers should focus on collecting data that are considered relevant, valuable, and extensive so that content validity is not hindered (Fusch & Ness, 2015). Korstjens and Moser (2018) pointed out that researchers should use data collection methods such as interviews, observations, and focus group sessions to maximize data saturation potential. Additionally, the researcher elicits valuable and adequate data from several interactions with participants who provide better findings from the data analysis plan (Korstjens & Moser, 2018).

#### Instrumentation

The data collection method used for this study was semistructured interviews.

These in-person interviews are commonly used in qualitative research to allow the researcher to meet participants face to face or through email and ask open-ended questions about their perspectives and experiences with the phenomena (Korstjens & Moser, 2018). These interviews allowed me to observe the participants for body language cues and understand the in-depth meanings of the participant's answers (see Given,

2008). Each interview was completed using an interview guide that I created. The interview guide consisted of open-ended and guided questions that focused on the participants' experiences and their worldview on the phenomena (see Burkholder et al., 2016). Using the research question and the theoretical framework as guides, I used questions that probed the participant to give more in-depth answers and to give more leniency in asking more probing questions on additional topics that emerged during the interviews.

Additionally, I conducted an in-depth face-to-face, semi-structured interviews with each participant lasting 20 to 30 minutes. Data saturation within this study was pursued through additional interviews as needed, to ensure that all valuable data were extracted from each participant. I also sought an additional interview with participants through email communication to allow me to elicit more data through follow up questions. Each interview was conducted in the privacy of the participant's home or at a convenient location for the participant and was recorded using the recording features of the *Rev* app on a smartphone. The participant was given the additional option of utilizing video software such as the *Zoom* or *Google Duo* app for conducting interviews.

Additionally, I conducted a debriefing of each participant during the introduction and conclusion sections of the first and last interview sessions. Participants were given information about the purpose of the interview, their rights to provide valuable data on their experiences and perceptions, and confidentiality instructions for storing and using their data. Participants were given consent forms to ensure that permission was given to the researcher to record and transcribe all information shared during any interactions

between both parties. Participants were consulted on any additional participation in more interview sessions to extract other data to reach data saturation. Participants were given a \$10.00 gift card as compensation for their participation.

## **Data Analysis Plan**

The generic qualitative approach was used to guide the selection of data analysis tools to analyze qualitative data collected so that findings provided answers and a better understanding of the themes discovered in the participants' experiences. This analysis offered interpretations that supplied insights into the older adults' experiences and social factors and the impact of food insecurity on social support networks.

I utilized thematic analysis to analyze and understand the data collected. Miller (2018) stated that thematic analysis allows the researcher to assess the data, identify any patterns or themes within the data, and provide conclusions. Once the data were collected through multiple semi-structured interviews, it was transcribed verbatim so that the researcher becomes familiarized with the data and begin the process of identifying emerging themes and categories (see Given, 2008). I completed the transcription manually and professionally through an agreement with the transcription company, Rev.com, which provided a detailed transcription of all interviews. The qualitative data analysis software (QDAS), *Delve*, was utilized for data storage, mapping, linkage, and data coding, and I continued to maintain confidentiality for all participants.

Furthermore, open coding and thematic coding was used as a part of the data analysis plan. These coding procedures identified categories and emerging themes or patterns from the data collected that describe the experiences, meanings, and perspectives

of the participant and the phenomena (Bailey et al., 2017). Next, all similar codes were grouped under categories and emerging themes, and these themes were reviewed to ensure that there are similar patterns within the grouped codes. I also created create a thematic map that showed the different levels of themes and the relationships between them (Allen, 2017; Ignatow & Mihalcea, 2018). This map helped to give meaning and definitions to these themes and showcase the links with similar words and phrases.

### **Issues of Trustworthiness**

# Credibility

The validity and trustworthiness of qualitative research are typically established through credibility, transferability, dependability, and confirmability (Ravitch & Carl, 2016). In establishing credibility in this study, I used the concepts of triangulation, reflexivity, and member checking (Korstjens & Moser, 2018). Triangulation was conducted by implementing different time slots for interviewing participants and utilizing online interviews as well as face to face interviews to ensure rigor in data collection (Ravitch & Carl, 2016). I used field notes and memos to write research insights before, during, and after data collection to satisfy the requirements of reflexivity within the study and eliminate any researcher biases (Connelly, 2016).

Participants were encouraged to be more involved in the study by sharing feedback and providing validations on data collected. This step aided me in establishing member checking and ensuring rigor within the study (see Connelly, 2016). These strategies helped in ensuring the trustworthiness of the researcher's ability to achieve validity and reduce bias (see Burkholder et al., 2016; Ravitch & Carl, 2016). Other

strategies implemented were peer debriefing to ensure that other professionals could review research instruments, data collection methods, and analysis and provide feedback (see Patton, 2015).

# **Transferability**

Transferability in qualitative research allows the findings of the study to be applicable to different locations and similar population group. This strategy was established in the research through thick descriptions of the participants' selection criteria within the study (Connelly, 2016). I provided detailed descriptions of the inclusion and exclusion criteria for the selection of participants for the study (Korstjens & Moser, 2017). Other strategies that aided me were thick descriptions of the data collected, as well as detailed descriptions of the research's processes (see Korstjens & Moser, 2017).

# **Dependability**

The dependability of qualitative research is established to show that consistency was maintained throughout the data collection process and the findings are reliable. This dependability was established using audit trails to ensure transparency and accuracy.

These audit trails provided notes on the research methods, the data collection procedures, and decisions made during the research (Anney, 2014; Ravitch & Carl, 2016). Another strategy used to ensure dependability is coding-recoding (Anney, 2014). This strategy allowed me to compare both codes and determine if the same results were achieved.

#### Confirmability

In qualitative research, the findings presented must be void of any researcher biases and should be replicable. I established confirmability through the reflexive

journals maintained throughout the research (Given, 2008). These journals allowed me to write reflections on any biases and values that may impact the study results. This step ensured that I maintained an observer role in the study, minimizing personal involvement and upholding verifiable methods.

## **Ethical Procedures**

I established ethical procedures per the IRB regulations (Walden IRB approval number 73641882022) to ensure the protection and ethical conduct of the researcher (Burkholder et al., 2016). My primary ethical considerations are confidentiality, research boundaries, and informed consent (Arifin, 2018). Therefore, the participants were allowed to review informed consent forms and ask any crucial questions about their participation. The informed consent form provided reassurance of the researcher's responsibilities to each participant, protection of their data, and provide information on the procedures, and the purpose of the study. Steps were also taken to ensure the privacy and confidentiality of the participants. Participants were assured that confidentiality was maintained through a code system that replaces their names and addresses in the study. I utilized code names for participants and exclude actual addresses and any personal information identifying the participant. In addition, I also maintained secure storage of all the data collected to ensure that the participants' personal information is not comprised.

## Summary

This chapter sought to provide explanations and details on the methodology used in this study. A detailed outline of the rationale of each section of the chapter offers justifications for the research design selection, the data collection instruments used, the

participant inclusion and exclusion criteria, and the methods used in the data analysis plan. Therefore, there were detailed explanations on applying the generic qualitative design, using semi-structured interviews, employing the procedures for using open and thematic coding and thematic analysis. Chapter 3 also provided additional explanations of the rationale for conducting this study and provided detailed descriptions of the choice of the participant sample size utilized in the study and the role of the researcher in the study. I also offered clear justifications on establishing validity and trustworthiness within the study to ensure that research alignment was maintained.

After presenting the oral defense of the study and the subsequent application to the IRB, I collected data and moved to the analysis. Chapter 4 presents the study's findings and offers discussions on these findings.

## Chapter 4: Results

In this qualitative study, I aimed to explore experiences of adults 65 years and older facing food insecurity and the social support in food insecurity. When conducting qualitative research, it is essential to remember the ethical considerations of interviewing participants. This means that participants must be fully informed, willing to participate, and face no consequences if they decide to withdraw from the study. The objective was to explore and understand the challenges that vulnerable groups within the communities across the United States and globally face, especially adults aged 65 years and older. Their access to reliable and safe food supplies is impacted, which can lead to an adverse domino effect. Food insecurity is interpreted as a socioeconomic issue affecting the marginalized and vulnerable communities for many older adults despite social and economic changes that concerned organizations have instituted and implemented. This chapter offers further analysis of the topic and its impact on the subjects by examining the setting, demographics, data collection methods, data analysis, the reliability and credibility of the evidence, findings, and a summation of the identified outcomes.

# **Setting**

The participants were all African American and residents of Broward County, located in Florida, aged 65 years and older, and considered low-income. Participants shared their experiences with economic changes, homelessness, and the impact on their social support system. Face-to-face and phone-recorded interviews were the method of data collection used to gather information from the participants. The data were collected and recorded at the participant's convenience. Interviews for this study were conducted in

person or over the phone with myself. Face-to-face interviews were done in their residence or a private setting such as their living room with no one home or in another room with the door closed. For these interviews, I used my home office and talked with the participant alone where their privacy was secured. There were three face-to-face interviews; the remaining nine were done over the phone using the speaker function and recording with the Rev App on a cellular phone. Confidentiality needed to be maintained, and for each session, the participant was assured that their privacy was being maintained throughout the process.

# **Demographics**

The participants in this study were African American aged 65 years and older. Many who volunteered for the study were between the ages of 66 and 75 and considered low-income. All participants were Floridians and resided in Broward County. The sample size was 12, which included four men and eight women. The interviews were mainly done in person (recorded), and measures were taken to ensure their identities remained confidential. Each recording session was done using the Rev App and was stored in a secure PIN-protected file. Therefore, names and addresses were eliminated; their initials and a coding system were used to safeguard their privacy, as noted in Table 1. All the male participants were still gainfully employed, while government benefits mainly supported the female participants. During the interview sessions, each person's food security barriers were highlighted; some participants mentioned being on a fixed income and how public transportation, for example, contributed to their food insecurity.

Table 1

Participant Demographics

Participant ID#	Age	Gender	County
M67	67	Female	Broward County
R67	67	Female	<b>Broward County</b>
E72	72	Female	<b>Broward County</b>
D69	69	Male	<b>Broward County</b>
M79	79	Female	<b>Broward County</b>
S67	67	Male	<b>Broward County</b>
W76	76	Female	<b>Broward County</b>
V70	70	Female	<b>Broward County</b>
H75	75	Female	<b>Broward County</b>
M66	66	Male	<b>Broward County</b>
V73	73	Female	<b>Broward County</b>
C78	78	Male	<b>Broward County</b>

## **Data Collection**

For this study, 12 participants of African American descent were interviewed (face-to-face and over the phone). I recorded the interview with the Rev App and stored data in a PIN-protected file. The data were collected from each participant at their convenience. Interviews with participants were conducted about twice weekly over nine 10-week periods. Each interview lasted 35 minutes to 1 hour. All the interviews were conducted in Broward County, Florida. For face-to-face interviews, the participants were again informed about the nature of the study, the purpose of the discussion, and that the session would be recorded. Still, the data remained confidential as all identifying details were eliminated. The recorder (smartphone- Rev App) was visible at all times, and each participant was informed that they could stop at any time if they so desired. Face-to-face

interviews were conducted in a private, quiet environment where the participant could answer each question openly and honestly.

Extra precautions were taken to maintain privacy and confidentiality for the interviews completed via phone calls. In this study, each participant was given a code as a means of identification. The code included the initial of each participant's name and age. This showed that each individual had a unique code that helped secure and maintain their privacy. I called each participant to schedule an interview time that was convenient to them and reminded them of the purpose of the interview and their right to participate without consequences and to do so in a private area. A follow-up phone call was made at the scheduled day and time, and again each participant was informed that the call was on speaker phone, it was being recorded, and that I was alone in my home office as a means to keep them informed and secure their privacy. In some cases, participants asked for time to move to another room for privacy and out of earshot of their relatives or caregivers.

There were minimal variances in the data collection plan from Chapter 3. Among the noted minimal variances was the proposed length of each interview, which was set at 20 to 30 minutes, but interviews with each participant ranged from 35 to 60 minutes. Initially, there was no plan to do follow-up calls, but based on my chair's advice, it was considered and completed. The follow-up sessions were not conducted with all participants; six (50%) participants received follow-up calls to gain more information. I had follow-up sessions with only 50% of the participants because their initial responses were not as complete as the remaining 50%, hence the need for follow-up sessions. The

follow-up phone calls allowed me to gain more in-depth information from the participants where they could offer more specific details about their views on food insecurity, how it was impacting their lives, and suggestions on how they thought specific interventions or resources could alleviate the issue for them. The identified difference was in the depth of the information given, as many of those who received follow-up calls had more time to think about the issue and how specific interventions could improve their lives and outcomes if applied. There were no noted unusual circumstances encountered during the data collection process.

## **Data Analysis**

The method used to evaluate the collected data was thematic analysis, as it helped me to detect and categorize trends and themes and helped me to formulate and underscore the findings. Each interview was examined, and the main areas or points of concern were highlighted. Each discussion highlighted similar patterns and their cause(s) for food insecurity. Some emerging patterns included having a fixed income, the adverse effect of COVID-19, and lack of transportation. I realized that similar sentiments were being experienced by the participants, which gave rise to the detected and named themes. After the data collection process and analysis were conducted, I noted that there were similar points of concern, patterns, trends, and common denominators, which underscored the tenets of thematic analysis. To effectively analyze the data and not compromise the participants' identities, a unique identifier was created to ensure that they remained unnamed to the public.

As previously stated in Chapter 3, open coding and thematic coding were implemented to accurately find and classify incipient trends or themes to disseminate the data collected from each participant (see Bailey & Birch, 2018. Codes with a common thread were labeled under the developed theme, which was meticulously reviewed to ensure that similar patterns were sorted and assigned to the most appropriate group or theme. This underscored the connection (see Allen, 2017; Ignatow & Mihalcea, 2018).

After assigning each unique identifier to each participant to protect their identity, an audit of their responses was completed; a code was assigned to each emerging pattern as well. As noted in Table 2 and Figure 1, some of the most common issues that caused food insecurity for each participant were recorded, and codes were assigned. Several codes were derived to categorize each theme or arising pattern, as noted in Figure 1. For example, the code Notranspo was set to participants who spoke of no transportation. For participants who spoke of no or low funds, the code Nofunds was assigned. For those who mentioned having fixed income/limited income, the code Fincome was given. \$Increase was the code given to participants who said an increase in cash. For those unable to purchase nutritional meals, the code No\$NM was allotted. Lafood was another code implemented to represent participants who spoke about insufficient food. NoPN was a code assigned to the participants who did not have proper nutrition. For participants 65 years and older, the code Paage was assigned. BCres was the code assigned to indicate Broward County residents, and lastly, LIHless was assigned to participants who had a low income and were homeless. The arising patterns such as having a fixed income, a disability, low income, homelessness, or housing problems as M67 mentioned, poverty,

lack of affordable nutritional foods, price increases, personal safety, health concerns, and lack of accessibility to proper dietary foods as noted by participants E72, V70, and H75 were all coded.

From this finding, eight major themes emerged, as noted in Figure 1, and they are as follows:

- Theme 1: Lack of transportation means obtaining nutritional foods at various agencies and supermarkets.
  - Food insecurity is elevated when individuals cannot access nutritious foods because of the lack of transportation. It can leave participants with very little food or see them going without for a while.
- Theme 2: Income and overall fund levels upset the ability to obtain nutritional foods, leading to food insecurity.
  - Food insecurity negatively impacts low-income participants significantly as food costs have risen. Therefore, many forego buying dietary-appropriate foods, increasing food insecurity.
- Theme 3: High food costs (including those associated with inflation) are also an issue in obtaining nutritional foods and meals.
  - As previously mentioned, the rise in food costs is a deterrent to food security for adults 65 and older in Broward County.
- Theme 4: Benefits and resources like housing help some individuals find nutritional food funds.

- With the issue of homelessness resolved, many participants can focus more on making healthier food choices.
- Theme 5: Health concerns, health problems, and disabilities are also linked with a lack of nutritional foods and meals, affecting their health.
- Theme 6: COVID-19 compounded health issues, financial issues, and access to healthy foods.
  - During COVID, emotional health was at risk, there was a lot of fear and isolation, and many people had to cut back on nutritional foods and meals due to a lack of income.
- Theme 7: Accessibility and a lack of assistance were barriers to nutritional foods and meals.
- Theme 8: Safety concerns those living on the street and not having somewhere safe to get resources and benefits.

**Table 2**Example Codes and Definitions

Code	Definition
Notranspo	Participants who spoke of no transportation
Nofunds	Participants who stated they had a lack of funds or
T.'	low income
Fincome	Participants who stated they had a fixed
	income/limited income
\$Increase	Participants who spoke about an increase in
	money
No\$NM	Participants who were unable to purchase
	nutritional meals
Lafood	Participants who spoke to not having enough food
NoPN	Participants who did not have the proper nutrition
Paage	Participants who were over 65 years old
BCres	Broward County residents
LIHless	Participants who had a low income and were
	homeless

Figure 1

Codes, Categories, and Themes

#	Code Label	Definition of Codes	F-Per P.	F(F) To $(n =$		Category
1	Notranspo	Participants who spoke of no transportation.	Coding Table		14	Transportation
2	Paage	-	nt who is over	Coding Table	15	Demographics
3	BCres	<u> </u>	rd County	Coding Table	12	Demographics
4	LIHle	1	nt who had me and was	Coding Table	18	Demographics
5	Elret	A participelderly or	pant who is retired.	Coding Table	1	Demographics
The	eme 1:	Lack of transportati		ning nutrit	ional	foods at various
		agencies and superr	<mark>narkets.</mark>			
6	Nofunds	Participant who stated they have a lack of Funds or	Coding Table	36		Income
7	Fincome	low income. Participant who stated they have a fixed	Coding Table	34		Income
8	\$Increase	Income/Limited Income Participants who spoke about increase in money.	Coding Table	4		Income
9	No\$NM	Participant who were unable to purchase nutritional meals	Coding Table	46		Nutritional Meals (-)
10	Lafood	Participant who spoke to not having enough food.	Coding Table	7		Nutritional Meals (-)
11	NoPN	Participant who did not have the proper nutrition	Coding Table	19		Nutritional Meals (-)

Theme 2:	Income and fund levels upset the ability to obtain nutritional foods which leads to food insecurity.
12 Fafford	Participant who Coding Table 7 Nutritional spoke about Meals (+) purchasing affordable nutritional meals
13 NMS	Participants who Coding Table 5 Nutritional spoke about the benefits of nutritional meals
14 Downfoo	
15 Upliving	Participants who Coding Table 6 Inflation spoke of the cost of living (increase-inflation)
16 Upfood\$	Participants who Coding Table 20 Inflation spoke about the increase in food prices
17 Expen\$	Participants who Coding Table 22 Inflation spoke about the increase in prices, bills and expenses
Theme 3:	High food costs (including those associated with inflation) are also
18 Benes	an issue in obtaining nutritional foods and meals.  Participant who Coding Table 61 Resources spoke about benefits, relying on it or needing it, or providing it.
19 Hing	Participant who Coding Table 1 Resources spoke on housing
Theme 4:	Benefits and resources like housing help some individuals find
20 Sbody	funds for nutritional foods.  Participant who Coding Table 2 Health spoke about stress on the body

21	Hprob	Participants who spoke about health	Coding Table	26	Health
22	Hbody	problems Participants who spoke about nourishing the bodies.	Coding Table	12	Health
23	Dbility	Participants who spoke about having a disability or developing a chronic disease.	Coding Table	20	Health
The	eme 5:	Health concerns, hea	alth problems an	d disabilities ar	e also linked
		with a lack of nutriti			
		their health.		,	
24	ЕтоНС	Participant who had emotional health concerns	Coding Table	9	Emotion
25	Frr	Participant who were in fear	Coding Table	8	Emotion
26	Ison	Participant who were isolated	Coding Table	17	Emotion
27	Cful	Participant who were careful because of fear	Coding Table	11	Emotion
28	Cback	Participant who had to cut back their wants and needs	Coding Table	21	Emotion
29	CElder	Participants who spoke about people caring about the elderly.	Coding Table	4	Emotion
The	eme 6:	During COVID, em	otional health w	as at a risk the	re was a lot of
1110	cinc o.	fear and isolation w			
		nutritional foods and			
30	Massist	Participant who spoke to needing more assistance	Coding Table	8	Accessibility
31	Unres	Participant who spoke about not know about resources-whether unsure or	Coding Table	27	Accessibility

32	Linfo	there was a lack knowledge. Participant who	Coding Table	1	Accessibility	
33	Laccess	spoke of a lack of information Participant who stated that there	Coding Table	2	Accessibility	
34	Foodaccess	was a lack of accessibility Participants who spoke about food	Coding Table	8	Accessibility	
35	Nowork	being more available Participant who was unable to	Coding Table	2	Dependency	
36	Rothers	was unable to work Participant who were unable to	Coding Table	14	Dependency	
37	Limobile	help themselves/relying on others. Participant who	Coding Table	1	Dependency	
	eme 7:	had limited mobility Accessibility and a	_			
		nutritional foods and meals.				
38	UFC	Participants who spoke about		4	Safety	
39	SSpace	situations that happen as a result of hard choices (unforeseen circumstances) Participants who spoke about having a safe space to get social	Coding Table	1	Safety	
		service resources, benefits or assistance.				
Theme 8: Safety is a concern for those living on the street and not having somewhere safe to get resources and benefits.						

#### **Evidence of Trustworthiness**

When presenting evidence from a research study, it must be trustworthy and, in this case, guide clinical practice and policy creation. Trustworthiness is one of the more essential elements of any research and comprises vital components, including integrity or credibility, transferability, confirmability, and reliability (Nyirenda et al., 2020). To maintain credibility, the researcher utilized theoretical and socio-ecological frameworks to guide the research process and the researcher's philosophical perspectives. It, therefore, means that evidence-based data and studies showed the tenets presented. The most appropriate research design was utilized to ensure the credibility of the study, and, in this case, the qualitative approach was best as it catered more to analyzing people's behavior and experiences, which can be subjective. Spending an extended period with participants and doing follow-up sessions to gather more data also helps to create credibility as the actual perspectives of the participants were gained and gauged (Forero et al., 2018). The findings from previous research studies were used as a lighthouse to guide the researcher throughout the process. This underscored the integrity of the research process as well as the findings. Ensuring no conflicts of interest also assures the reader that bias is low and that neutrality was maintained. Using these tools and processes helped the researcher maintain the study's integrity.

Transferability is also crucial as one wants to ensure that the findings can be applied in practice and help shape policy to help eradicate food insecurity, especially for adults 65 and older. Ensuring that transferability is vital as it allows readers to make informed decisions and apply said findings in their current situation. The researcher was

careful to ensure that the issue of food insecurity among adults aged 65 years and older was thoroughly researched and presented to the reader. Findings needed to be given so that readers could transfer the conclusions. Using past studies to support the current results helped with integrity and proved that it could be applied to individuals within the related context. Ensuring that data saturation is attained also helps to make the information gained transferable (Forero et al., 2018). It should be noted that having more demography within the sample could help to bolster the generalizability even more.

Dependability and confirmability were also established using data and frameworks from previous studies and authorities on the subject area to support the viewpoint being offered by the researcher. Corroborating findings and data help assure readers that the evidence presented maintains fidelity and can be proven if they replicate or test the conclusions.

### **Results**

# Theme 1: Lack of Transportation Affects Obtaining Nutritional Foods at Various Agencies and Supermarkets

The first theme that was identified was the lack of transportation. This theme focuses on the effects of participants not having adequate transportation to obtain nutritional foods at various agencies and supermarkets. Three participants identified this as a barrier, and I asked, "What are some of the problems you've experienced that prevent you from achieving nutritional well-being?" Participants M67, M79, and V73 all expressed that lack of transportation contributed to their inability to achieve nutritional well-being. Participant V73 blatantly stated that "not having reliable transportation, it's

Participant M67 further explained that she believed elderly adults in food-insecure households have higher rates of developing chronic diseases like depression due to the inability to get nutritional meals from food pantries because they had difficulty getting around and accessing transportation: "Well, there are food pantries that sometimes give away food, and I have difficulties getting there because of transportation. Going without having food sometimes causes stress on the body, which can bring on depression." Both participants, M67 and M79, stated that food insecurity had affected them personally due to access to transportation. M79 highlighted that lack of transportation limited her ability to access nutritional foods when she said, "Not having transportation to get me to places like food banks to get nutritional foods is one of the issues." This for her, per her interview, triggered a feeling of "sadness and helplessness."

Participant M66 provided some insight on the fact that the COVID-19 pandemic affected his ability to acquire food due to his concerns with accessing public transportation and being subjected to being around people who may be sick. He stated that one of his primary concerns was

being able to go out amongst people. You never know whether or not you will contract it, so you try to stay away or stay home. Whatever you had at the house, use that up or whatever it was to try to get back.

The fear of contracting the disease made it even harder to replace used food items, which negatively impacted his nutritional intake. Participant V73 gave insight into how the government could alleviate the prevalence of food insecurity among the older adult

population. She explained that there is a disconnect between the agencies with the resources and those needing them. This disconnect is seen through the lack of awareness of the availability of free nutritious meals and the lack of transportation to these various agencies. Once these two are addressed, the government can begin to alleviate the issues many elderly face regarding enjoying a more active and nutritious lifestyle.

# Theme 2: Income and Fund Levels Upset the Ability to Obtain Nutritional Foods, Which Leads to Food Insecurity

The second theme focused on how income and fund levels affected the ability of participants to obtain nutritional food, leading to food insecurity. Throughout the interview, all 12 participants mentioned how having limited funds or a fixed income affected their ability to get the necessary nutritional foods. As a result of this, it led them to experience food insecurity. Participants were asked to explain their understanding of food insecurity; W76 defined food insecurity as a lack of funds, whereas participants M67, R67, D69, M79, and H75 provided similar answers that ultimately described food insecurity as having limited funds to purchase nutritional foods. Participants M67, R67, D69, M79, S67, W76, M66, V73, and C78 spoke about being on a fixed income and the money they would earn was insufficient to purchase the foods they knew they needed to be healthy. When participants were asked to elaborate on their definition of food insecurity, they all defined it to some extent as not having the funds or being unable to afford the proper nutritional meals.

Participants were then asked, "What problems do they experience that prevent them from achieving nutritional well-being?" Participants M67, R67, D69, H75, V73,

E72, W76, M79, M66, and C78 all spoke about their incomes being a factor that prevented them from achieving nutritional well-being. Participant M67 mentioned that she lacked the funds to purchase proper dietary meals. Participants R67, D69, H75, and V73 all spoke about having a fixed income and deciding which food items to buy based on their money, ultimately leading to them having to purchase unhealthier options. Participant E72 mentioned a lack of funding as a result of having a disability and not being able to work. Being on a fixed income and having a disability were among the noted patterns that impacted participants, like E72's ability to access nutritional foods, which caused poor nutrition, which in turn caused fatigue and weakness and affected her overall health. When asked to elaborate, E72 stated, "Not having enough funds to spend on nutritional meals will affect your health." E72 understood the harmful impact food insecurity can have on older adults.

Participant W76 spoke about her inability to earn due to being older and having illnesses. Participant M66 mentioned being on a fixed income and having to meet the high cost of living demands. He further elaborated and said that prices were going up, for example, rent; however, his pay has stayed the same. Participant C78 also explained that he was on a fixed income and must pay his bills, creating a barrier to achieving nutritional well-being. M79 mentioned having a fixed income; however, due to being retired and having a chronic illness, she relied on programs to assist her with obtaining nutritional meals.

Participants were asked if they believed that elderly adults in food-insecure households have higher rates of developing chronic diseases; participants E72, W76,

V70, and M66 agreed. They attributed it to not having enough funds to purchase nutritional meals.

# Theme 3: High Food Costs (Including Those Associated With Inflation) Are Also an Issue in Obtaining Nutritional Foods and Meals

The third theme focused on how high food costs (including those associated with inflation) affected individuals obtaining nutritional foods and meals. Theme three highlighted how expensive food has become and how it affected each participant's ability to purchase nutritious meals. Participants were asked to provide suggestions to governmental agencies on how they could alleviate the prevalence of food insecurity among elderly adults so that they may enjoy a more active and nutritious lifestyle. Participants M67, E72, M79, D69, S67, V70, M66, and H75 all stated that the government needs to lower the cost of food and make it more affordable so that elderly individuals can purchase nutritious foods. The participants elaborated by providing the benefits of being able to afford nutritional meals. Participant M67 stated that having the right kinds of nutritional meals can help her stay focused and build up her body, which will help lower the risk of chronic illnesses. Participants E72 and S67 felt that having nutritious meals would help individuals focus better, making them healthier. Participant R67 suggested lowering the price of food so that elderly adults can eat the proper meals that would be nourishing to their bodies. Various participants mentioned that the cost of food prices and the cost of living has increased, and this was a factor as it related to food insecurity. Participant R67 spoke about the high cost of living and, as a result, individuals could not purchase nutritional meals. She also explained that prices are high, and she

cannot eat the proper foods because there are insufficient funds to buy what she needs:

She expressed this sentiment by saying ,"prices are high, and I cannot eat properly
because there's not enough funds to buy what I need."

Participant M66 also stated that he could not get the nutritious foods he needed because he was on a fixed income. He found it challenging to compete in keeping up his balanced diet because the food prices were so high. He further elaborated that everything is going up except for his income, and he finds it challenging to keep up with his other expenses when everything is increasing; however, his income is still the same. For him, "food is now becoming a luxury and out of reach." Participant D69 also agreed and stated that prices had increased, and healthy food was not affordable. He explains that it is hard to survive in these economic times and that he has had to adjust his budget and get the less expensive items that are not always nutritious. Participant M79 explained that the cost of food is very high, and she has had to rely on food banks to get the necessary nutrition. One of the problems that participants S67 and H75 highlighted included experiences that prevented them from achieving nutritional well-being, and it was the rise in food prices. They both mentioned that their grocery bills were increasing, so they could not afford the foods they should be eating. Participant V73 explained that some of her problems were due to rising food prices; she stated that she does not have enough money to buy the foods she would typically purchase.

## Theme 4: Benefits and Resources Like Housing Help Some Individuals Find Funds for Nutritional Foods

The fourth theme focused on the positive effects of benefits and resources such as housing when individuals need funds for nutritional foods. During the interview, participants were asked if they were experiencing food insecurity. All 12 participants answered yes to this question; however, it was interesting to see that of the 12 participants, only 1 participant, Participant M79, stated that she was a recipient of home deliveries and congregate meals. Participant M79 explained that she had to rely on food pantries and benefits like Meals on Wheels to get the necessary nutritional meals. She also emphasized that she could not afford the nourishing meals and only had them because of the programs she was on.

Throughout the interviews, it was apparent that many participants needed benefits but were not receiving them. To further elaborate, the participants spoke on the need for increased benefits for elderly individuals. Participant M67 mentioned that the local government needed to do more for elderly individuals who could not help themselves. She further stated that increased benefits and more affordable housing must be improved, especially for older adults. She also pointed out that currently, there is an increase in housing costs; however, there is a decrease in benefits. Participant S67 stated that there should be more government centers in the community for elderly adults to access assistance with nutritional foods. Participant V70 noted that she believes financial aid should be provided to elderly adults to alleviate the high cost of food. Participant H75 said many elderly individuals go hungry because "they don't get the assistance they

need." Participant M66 believes one of the solutions to food insecurity amongst elderly individuals was for the government to create more programs that could better assist people who needed help obtaining nutritious meals. Participant V73 highlighted the government's need to provide transportation for elderly adults to the programs and agencies that serve healthy meals. She continued by saying if the government increased the benefits, then elderly individuals would have more money, which would ultimately benefit them. She also mentioned how homelessness impacts older adults' ability to find nutritionally beneficial food. She stated that some of them may not even be aware of or even "remember that food might be available somewhere for them to get free warm meals. Unfortunately, people wait until they are in a crisis before they try to get information."

Participant C78 pointed out that he noticed that many organizations had food banks that provided specific kinds of foods, such as canned foods and leftovers. He believes the government should regulate these places so that the foods they serve are nutritious and safe.

# Theme 5: Health Concerns, Health Problems, and Disabilities Are Also Linked With a Lack of Nutritional Foods and Meals; This Affects Them and Their Health

While interviewing the participants, a few spoke about the cost of living and how the increase has affected them in various capacities. They provided insight into the impacts this has had on them financially. Many admitted that they are on a fixed income, and, due to this, they had to decide monthly what need was more important, whether it was paying their bills or taking care of their health. Theme 5 focuses on the health

concerns, the health problems, and the disabilities that are linked with a lack of nutritional foods and meals, which ultimately affects the participants.

Participants M67 and M66 spoke about the effects of inadequate access to healthy foods on an individual. Participant M66 blatantly stated that for him, the main impact of access to less nutritious food

is that it is not healthy. Your health starts failing when you don't get what you're supposed to have for your body. You don't get the nutrition. You can get all kinds of diseases because you don't have the proper nutrition. So, it makes an impact on your life. A big impact.

They talked briefly about stress and how it can lead to other issues, such as emotional problems like depression and sadness.

Many participants were transparent about their chronic illnesses and how the impact of COVID-19 and the limited funds they had affected their receiving the necessary nutritional foods to stay healthy. Participant M67 emphasized the importance of nutritious meals and how they impact her ability to focus and build up her body, lowering her risk of chronic illnesses. Participant E72 explained that when individuals do not have the proper nutrition, it can cause them to develop a chronic disease. She further explains that not having a balanced diet can cause weakness and tiredness and affect an individual's overall health. Participant S67 also explains that when the brain does not get the right foods, it can cause it not to function correctly. Participant V70 explained that deficiencies are caused when individuals lack proper nutrition. These deficiencies can impact the immune system, which will create health conditions.

Theme 6: During COVID, Emotional Health Was at Risk, There Was a Lot of Fear and Isolation, and Many People Had to Cut Back on Nutritional Foods and Meals

Due to a Lack of Income

Theme 6 focused on the effect that COVID-19 had on an individual's emotional health, which was at risk due to fear and isolation. It also underscored that individuals had to cut back on nutritional foods and meals due to a lack of income. Throughout the interview, participants spoke about some of the emotional health concerns they had due to hardships, such as going without food or being unable to get the necessary help, which caused feelings of depression, helplessness, and sadness. Some highlighted the fears they had during the COVID-19 pandemic. These fears caused many to isolate themselves because they felt they needed to be careful about their surroundings. Participant M67 spoke about isolating herself during the pandemic because she had underlying illnesses and feared contracting COVID-19. Participant E72 also talked about having a disability and being limited in going out and getting what she needed. She feared possibly contracting COVID-19, so she decided the best option would be to isolate herself and depend on trusted family members and friends to get what she needed and deliver it with no contact.

Participant M79 spoke about the concerns her doctors had as it related to her illnesses and interacting with the public. She mentioned that she had been in and out of the hospital and was in fear of returning, so she decided to isolate herself to minimize getting sick. Participant S67 stated that he isolated himself during the pandemic, which caused him to partake in less outdoor activities. He also noticed that he was not doing as

much for himself, and instead, he would rely on others for help. Participant W76 stated that she, too, isolated herself because she had to be more careful in her movement and have less contact with others, which impacted her socialization. Participant V70 stated that "the pandemic elevated her fears and that she could not take public transportation or go to crowded places, which impacted her ability to acquire nutritious foods." She also mentioned that she had a chronic illness and felt restricted from getting around.

Participant H75 mentioned her inability to go out and was mindful of where she was going and how close she was to people. She also said she had to avoid crowded places and be more careful than ever before. Participant M66 could not go into public places because he feared that he would contract COVID-19. He was also concerned about being around people. So, he decided to isolate himself by staying home. He would use the foods at home, and if needed, he would ask someone he trusted to get the other foods he required. Participant V73 felt she was at a higher risk of contracting COVID-19 due to other health concerns. As a result, she stayed at home and depended on her family to assist her when needed. Participant C78 also spoke about how deadly COVID-19 was and that he had to be careful because of his age and borderline conditions.

Although the pandemic brought on fear and isolation, it also caused individuals to limit their purchases due to income levels and inflation. Participants spoke about the number of foods they had to cut back on due to insufficient funds to purchase them.

During these moments, participants would find themselves opting for the unhealthier options or just doing without the foods.

## Theme 7: Accessibility and a Lack of Assistance Was Also a Barrier to Nutritional Foods and Meals

During the interviews, participants identified accessibility and lack of assistance as barriers that affected individuals obtaining nutritional foods and meals. Theme 7 emphasized these two as barriers and their effects on individuals struggling to get nutritious foods through their incomes or the help of public benefits.

Participant M67 was very vocal about the government's need to do more to assist elderly

Participant M67 was very vocal about the government's need to do more to assist elderly individuals who could not help themselves, especially those who were low-income or homeless. She continued her point by stating that there are so many elderly individuals who are not receiving enough food and health benefits. She also believed that many of them were unsure where to go to obtain the help they needed and that the government needed to provide better information about their programs. Participant H75 was also in agreeance. She stated that the government needs to give more details on the benefits available and create spaces where individuals can receive information safely. Participant R67 adds to this notion by saying that elderly individuals are sometimes on the street begging for food, asking for money, and needing help. Participant E72 believes that the government would be helping elderly individuals if they lowered the cost of food. E72 postulated that "they (the government) needed to lower the cost of food so that elderly adults can afford nutritious foods. Make foods more accessible and affordable, especially because my generation is at the age where we need affordable, nutritious foods." She also believed that programs are not doing their best to assist elderly adults, which is why there is a food insecurity issue.

Most, if not all, participants spoke on the need for the government to do more for elderly individuals. They also said that resources are lacking in certain areas. It is no secret that resources should always be available to those who qualify for them. However, participants throughout this study clarified that they were unaware of many available resources to them and other elderly individuals. It was noticeable that many participants needed some kind of benefits but did not know how to obtain them. Participant M79 stated that not having the correct information on where to get help was challenging. She suggested that a resource guide or information sheet on where to get help should be created so that elderly individuals can access it to get assistance. She also indicated that the government should create more food pantries that are accessible and offer nutritious food options. Participant S67 was very transparent when he spoke about how food insecurity affected him. He stated that food prices were rising, and he struggled with funds. He believed there were not enough accessible resources and that the food prices brought a shortage of nutritious foods in his diet. Especially since there was not enough information available to individuals on obtaining services from programs that could assist, he also believed that food security programs were not doing enough to help the elderly adults of Broward County because he saw that there was a limited amount of government agencies that individuals could go to get services quickly. He believed there should be more government agencies and information where older individuals can get assistance in obtaining nutritional foods.

## Theme 8: Safety Is a Concern for Those Living on the Street and Not Having Somewhere Safe to Get Resources and Benefits

The final theme focused on individuals who were homeless, not being safe and unable to have somewhere safe to get resources and benefits. Participants were asked if they believed food security programs were doing enough to help the elderly adults of Broward County. Participant H75 stated that she did not think the county was doing enough for older adults. She spoke about the effects of unforeseen circumstances in which individuals would need assistance, and due to them not knowing where to obtain help, they would find themselves begging on the road for food, money, or assistance, which would put them in a dangerous situation where they may be taken advantage of or being physically hurt:

Umm, people are on the streets begging; they put themselves in danger. They might be unable to move as fast, so they will likely get into accidents. Or sometimes when people go out, they try to beg to get food and get beaten up.

She further explained that for those individuals to obtain information, they needed to find places to go and get it safely.

#### **Results Discussion**

Leung and Wolfson (2021) reiterated that food insecurity is a critical and emerging health practice issue for individuals who are 60 years and older for several reasons, including having fixed incomes and coping with persistent health issues. These named reasons are among the detected main themes of this study. Other experts have identified affordability, homelessness, living alone, increased basic living expenses, and

increased financial constraints, which negatively impact many elderly persons' abilities to afford nutritional foods (Tucher et al., 2021). These are the underlying triggers of food insecurity among individuals 65 and older. The eight significant themes I identified have been proven to be barriers to food security in previous studies and were confirmed as the findings demonstrated similar sentiments as told by the participants. Other studies found that food insecurity can trigger multiple comorbidities, impacting the participant's quality of life (Tucher et al., 2021).

This study yielded similar results as some of the participants interviewed experienced other comorbidities and, in the case of V70, due to the onset of a particular chronic illness, was not able to eat specific type of nutritional foods (food restrictions) such as green leafy vegetables from the cabbage family, certain fruits, and nutscircumstances like this help to promote food insecurity and threats to the participant's health and overall well-being. The lack of social support and the causes of food insecurity take a toll on individuals, especially among adults 65 years and older. Having poor or no access to transportation to go to the supermarket to purchase nutritional foods can also trigger food insecurity. Feeling unsafe can also cause adults aged 65 years and older, especially those experiencing homelessness, to experience food insecurity because they have limited or no access to resources and nutritional foods.

### Summary

Food insecurity is fast becoming a significant issue for the United States and the rest of the world, particularly among adults 65 years and older. This chapter examined the setting, demographics, method(s) of data collection, data analysis, evidence of integrity,

and the findings. The study, which is set in Broward County, included 12 participants of African American descent who were 65 years and older to examine the issue of food insecurity. Evaluating the data collection method and presenting the data analysis helps to underscore the strength and integrity of the evidence and study findings; this is a crucial step as it helps to establish the foundation needed to reestablish the study's purpose, interpret the results, examine the weaknesses, posit recommendations, present inferences, and offer readers a viable conclusion. In Chapter 5, I will discuss the findings and implications.

### Chapter 5: Discussion, Conclusions, and Recommendations

Food insecurity is a social challenge that has triggered elevated levels of concern, especially as its most devastating impact is felt within the vulnerable population, including adults 65 years and older. Lee et al. (2022) postulated that as of 2018, 5.3 million older members of the American population experienced food insecurity. The lack of access to nutritious food has posed a problem, and in this research, I aimed to examine the impact food insecurity has on older adults and how that affects their social support system. The nutritional needs of older individuals are distinctive, and being unable to consume the most nutritious foods can trigger adverse health outcomes, including chronic comorbidities. According to the National Council on Aging (2022), consuming a lessthan-proper diet and low levels of vital nutrients can trigger malnourishment, vitamin deficiencies, and chronic disorders like diabetes, which the evidence suggests affects approximately 65% of adults 65 years and older who experience food insecurity. The National Council on Aging opined that older adults (50 years and older) are more susceptible to wear and tear on the body, obesity, depression, heart and gum diseases, and asthma. This underscores the seriousness of this public health problem and therefore demonstrates the importance of this study. The study's overall goal was to comprehensively analyze the issue, its prevalence, the unique needs of those impacted, the nature of the problem, risk factors for the affected, and how that affected their social support system.

This study used a qualitative design to gain insight from the participants as they offered their experiences due to bouts with food insecurity. Using the qualitative

approach allows a researcher to observe behavior and to gain a deeper understanding of the human experience as this problem impacts them. This also informed my philosophical perspectives and recommendations, as this issue is not simply explained by numbers alone. The disposition of the study facilitated the full exploration of the drivers of food insecurity among the older adult population and how their social support system is impacted. Using a qualitative approach and an interview to collect data allowed me to discuss the issue with participants who could be honest and highlight the issues that affect them individually, thus offering a personal viewpoint. Doing this facilitated the pooling of results and the detection of commonalities or patterns that exposed the drivers of food insecurity affecting adults 65 years and older. One study found that food insecurity among older adults is ominously linked to growing old, race and background, marital status, sexual characteristics, health status, mental state, mobility/ disability, income, dearth, homeownership, and household size (Lee et al., 2022). I unearthed similar correlations and discoveries.

## **Key Findings**

The key findings of this study were underscored by the eight major themes presented in Chapter 4. Factors contributing to food insecurities were revealed to be homelessness, low income, poverty (socioeconomic background), the onset of comorbidities or chronic illnesses (health concerns), disability, lack of transportation, elevated food costs, having a fixed income, lack of access to nutritious food choices, and feeling unsafe. As each participant answered the assigned interview questions, it was clear that the drivers of food insecurity among adults aged 65 and older in Broward

County were similar to those from previous studies. A crucial discovery was that food insecurity was a social determinant of health and could wreak havoc if left unchecked; it raised concern among the study participants.

The study also demonstrated that older adults who experienced food insecurity experienced a poor quality of life, and their daily activities and regimens were curtailed, impacting their overall well-being and mental health (Pooler et al., 2018). Notably, I also discovered that the drivers of food insecurity were also noneconomic dimensions and factors like the coronavirus pandemic in 2019 (COVID-19), which levied a devasting impact and added food insecurity to the growing number of challenging public health issues (see Lee, 2022). The pandemic caused many people to make even fewer trips to public places, including supermarkets, which caused a spike in food insecurity and malnutrition, especially among the older demography, as they were deemed more susceptible to the negative impact of the virus. Appropriately, feeding themselves became burdensome, and many older adults ate even less nutritious food, making them even more susceptible to contracting the coronavirus due to weakened immune systems and the lack of vital nutrients.

Many social support systems such as food pantries, congregate meal sites, and other food sources were either overwhelmed by need or closed due to national curfews and shelter-in-place ordinances. COVID-19 also triggered high unemployment rates, leading to even less income and adjusting to innovative ways of getting food while adhering to curfew guidelines. COVID-19 also caused a major disruption in the logistics and supply chain industry, which meant that the food supply chain was disrupted, placing

even more strain on the older adult's ability to access nutrient-rich foods (Akobundu, 2022). Millions of individuals globally faced hunger during the pandemic, and its occurrence emphasized how adversely food insecurity can impact the population, especially the older adult demography (Akobundu, 2022).

I found that a lack of transportation limited access to nutritious food, as many had difficulty getting to and from the supermarkets. This restricted the regularity with which they could buy nutritious food. The rising food costs have also made it difficult for adults aged 65 years and older to afford healthy food choices, especially because many are either low-income, experiencing poverty, or have a fixed income. These factors can make it very difficult to make healthy dietary choices. Many have to choose to have a home or purchase medications over purchasing and eating nutritious foods. Because affording the basic cost of living has increased, the participant's capacity to choose healthier foods has significantly decreased, which in turn causes a domino effect and elevates their susceptibility to adverse outcomes. I also found that many participants believed that advancing relief via government aid or appropriate supplemental programs could offer respite to older adults who experience food insecurity and the associated adverse effects. Exploring this topic as part of this research has confirmed and expanded my current knowledge base.

## Findings: Confirm, Disconfirm, or Extend Knowledge

This qualitative research has confirmed that the public health issue of food insecurity is rising across the lifespan. Still, more and more individuals aged 65 years and older are becoming more vulnerable, highlighting the importance of social support

systems. The study confirmed that issues such as homelessness, fixed income, low income, high basic living expenses, and lack of transportation foster food insecurity. These drivers, in turn, cause a ripple effect as other public health concerns, such as chronic conditions, namely depression, cardiovascular conditions, diabetes, hypertension, and obesity, are triggered. Past research and current findings confirmed that COVID-19 took a devasting toll on the older adult population and added more fuel to the adverse impact of food insecurity (Akobundu, 2022). The pandemic highlighted that the need for personalized social systems accessible to the most vulnerable among use, namely adults over 65 years old, is essential. The pandemic informed stakeholders of the importance of services and social support systems that support the nutrition needs of older adults.

My knowledge reservoir was expanded as the data analysis unveiled that food insecurity caused medication nonadherence as older individuals had to make the hard choice of eating or buying medication due to elevated costs. Because of this difficult choice, more and more older adults have been shifting away from healthier food choices towards cheaper and less nutritious foods (Pooler et al., 2018). Another discovery was how closely food insecurity was linked to poor mental health, as so many individuals became depressed as individuals felt isolated or alone (Octavie et al., 2023). The study underscores how crucial it is to offer interventions that boost the abilities of older individuals to become more food secure, and the use of social support systems is vital in that process.

In exploring the data, another finding uncovered that food insecurity seemed to be more common among the female populace or Black or African Americans. For example, over 60% (eight) of the participants were female, and 100% (12) of the participants were Black or African America (see also Octavie et al., 2023). This confirms previous research on this topic.

## **Findings Interpretation**

Evaluating these findings revealed that food insecurity is likely preventable, and that if some challenges are eliminated, the older adults within the population could increase their health and be less susceptible to adverse health outcomes. It seems that social support and access are critical pieces. The findings also suggest that establishing supportive systems may affect older adults' health outcomes and potentially lead to decreased healthcare utilization and associated costs.

The evidence has also demonstrated, and Pooler et al. (2018) would likely agree, that government programs like SNAP, for example, could help to reduce food insecurity. Still, most older adults who qualify do not attempt to access this support system. The elevated level of under enrollment has been attributed to the associated stigma, bureaucracy, misinformation, and lack of entitlement awareness (Pooler et al., 2018). A multipronged approach from an interdisciplinary team including social workers, lawmakers, older adults, and healthcare professionals must be employed to help stave off the adverse effects of food insecurity, especially among adults aged 65 years and older within the United States and the world at large (Pooler et al., 2018).

It is imperative that the task of reducing food insecurity within the country, especially among the most vulnerable groups, including adults aged 65 years and older, is not taken lightly. The evidence has shown that for the men, the most bothersome

concerns were the fear of becoming ill, being unable to go to and from easily without the constant fear of contracting COVID-19 and experiencing an early death.

Another difference in responses between the males and females was the emphasis the men placed on their reliance on others for help and their inability to partake in their usual activities and errands outside the home. Even though it was an issue for both sexes, the men in this study emphasized these issues. A lack of transportation was another prominent theme among male participants in this study, which was also connected to limited activities outside of the home.

Becoming food secure is possible, and using the suggested interventions and an adept multidisciplinary team can become a reality sooner rather than later. All stakeholders should work assiduously and use proven social systems to make food security possible for all. Stakeholders have a social responsibility to help individuals apply tools and social systems that influence their behavior and choices while improving the quality of their lives.

## **Limitations of Study**

The lack of diversity among the participants is a limitation, affecting transferability. Focusing on one demography, as was done in this study, could impact the ability of researchers to apply the findings across varying demographics. This inhibited my ability to explore the differences among different demonography, such as Hispanics, Whites, and Asians. Future investigation should ensure that the sample is diverse to obtain a broader perspective on how food insecurity affects varying demography.

Another limitation of this study was the sample size, even though it was slightly more (12) than the required minimum of 10. A larger sample size may have provided more robust findings and a more diverse demography. Future studies may consider increasing the sample size. Another limitation was asking participants to recall occurrences during the COVID-19 pandemic, which could cause oversights and biased responses. Previous studies have shown that participants' evaluation of their past state can be shaped by their current state, opening the pathway to subjective outlooks (Giroux et al., 2022). This supports the notion that recalling information about their status during COVID-19 could have yielded biased responses.

Another limitation that could impact findings was not conducting follow-up interview sessions with all participants, only 50%. A follow-up with each participant could have produced even more insight into food insecurity's impact on each person. Future investigations could explore doing follow-up interviews with all participants after they have had time to reflect on this issue's impact. Participant skepticism due to attached stigma was another limitation that may have inhibited my ability to obtain the participant's full experience or perspective. Offering education sessions before and being available for queries throughout the process may mitigate this issue. Gaining informed consent also helped to lower any skepticism that participants may have had. It offered participants complete insight into the study and awareness of their ability to withdraw from the study at any time without penalty. Protecting the identity of the participants with the use of code identifiers helped to increase their confidence that the attached stigma to the subject would not be reflected on them and freed them from the public judgment.

Researcher bias was an additional limitation identified earlier in the study. I felt that my analysis and interpretation of the data could be skewed, affecting the transferability of the study's findings. Thus, it was crucial that I remained neutral, recorded every interaction/interview, and used methodological stratagems such as audits to help decipher and interpret the findings and maintain veracity (see Percy et al., 2015).

### Recommendations

Based on the findings, I recommend that the current red tape for qualified older adults in the community to obtain access to resources that could help relieve food insecurity be revised and reduced. The aim is to reduce barriers and make it easier for older adults needing nutritional assistance to get the help they need to fulfill their dietary needs. Such resources include federally funded programs like SNAP. Addressing policy to help alleviate the barriers most older adults in need of nutritional assistance experience is essential. Increasing benefit amounts for older adults in need of nutritional assistance is also a related recommendation, especially because many of the participants were on a fixed income or had no or low income. Food costs are increasing, so providing a higher amount may help to reduce food insecurity among older adults aged 65 years and older.

I also recommend that healthcare professionals play a role or be included in the drive to gain access to resources that could help reduce food insecurity. Healthcare providers have more inside information about their patients and, with their expertise, can identify patients who should be given access to charitable and federal nutrition programs that provide benefits to help relieve food insecurity. Therefore, healthcare providers

could be among those who recommend older adults in need to agencies that aid older adults needing nutritional assistance.

Access to reliable transportation could also help reduce food insecurity as older adults would have a viable means to travel and obtain nutritional foods. No access to reliable transportation has been identified as a significant cause of food insecurity. Many older adults have to travel to supermarkets, sometimes outside their neighborhoods, to access nutritional foods. As was discovered during this study, access to transportation was an issue during COVID-19. Many older adults did not take public transport too often due to their heightened susceptibility and fear of contracting the virus. More free community shuttles that promptly ply specific routes that pass supermarkets and farmers' markets could help increase access to nutritious foods and reduce food insecurity rates among older adults.

Based on these findings, I also suggest that community gardens be established so that older adults can access nutritional produce, which can help reduce food insecurity. Community gardens and green spaces can increase access to nutritious food and support individuals, like older adults, who are experiencing food insecurity (Lampert et al., 2021). Easy access to fruits and vegetables can help increase nutritional intake and improve health outcomes.

Another recommendation that I would make is to increase strategic partnerships with community charities and agencies like Feeding America and Meals on Wheels

America to fill the current gaps that the lack of access to food causes among the older adult demographic due to food insecurity. The overall goal is to increase access to

nutritious food for older adults within our communities, which will help to reduce food insecurity rates.

Influencing policymakers to prioritize food insecurity and create laws that influence purchase appeal and lead consumers to buy affordable and healthier foods is another recommendation being presented for consideration. For example, implementing a junk food tax and reducing or removing taxes on fruits and vegetables will help buyers purchase and consume healthier foods. Offering incentives to supermarkets to increase their nutritious food inventory at affordable rates could also help to increase access to nutritious food and, therefore, help to reduce food insecurity among the older adult demography within the communities they serve. In this scenario, the goal is to make nutritious food more affordable and appealing to consumers (National Institute on Minority Health and Health Disparities (NIMHHD), 2023).

## **Implications**

- Food insecurity is a significant issue that negatively impacts older adults and,
   if left unchecked, can trigger chronic conditions, disabilities, and adverse
   outcomes.
- Food insecurity among older adults is caused by several factors, including low income, accessibility, lack of transportation, high food costs, homelessness, and having a fixed income.
- Food insecurity affects older adults physically, mentally, socially, and emotionally.

- Food insecurity can cause depression, isolation, a sense of helplessness, and lifelong chronic conditions like diabetes, obesity, cardiovascular diseases, and physical limitations, which can impact their activities of daily living.
- Food insecurity among older adults can cause them to experience
   malnutrition, depression, and physical limitations that affect how they live.
- Applying a multipronged approach can help to counter the issue of food
  insecurity among older adults. Related agencies, charities, and shareholders
  must work together to identify interventions to help alleviate factors that
  contribute to food insecurity among older adults.
- Social support systems are essential to eliminating food insecurity, especially among the older adult population.
- Social support systems' presence and use will help improve the health outcomes and well-being of older adults.
- Increasing access to affordable, nutritious food will help decrease food insecurity among the older adult population.
- Giving access to federal food programs can help reduce food insecurity among adults older than 65.
- Food insecurity is inextricably correlated to low income/ poverty; therefore,
   finding options that provide older adults with a livable fixed income would be
   welcomed as this helps them afford nutritious food, reducing food insecurity.
- Increase access to transportation, which helps older adults access nutritious foods.

 Improve access to nutritious food by creating policies and interventions that influence older adults to choose healthy foods and become food secure.

### **Conclusions**

Food insecurity is a pointed issue in the United States and has significantly impacted older adults aged 65. In 2021, it was reported that 12.4% of seniors faced food insecurity, which was most prevalent among low-income individuals (Leung & Wolfson, 2021). It should be noted that food insecurity is a preventable issue but poses several challenges for the older adult demography as its onset can trigger adverse outcomes. Several factors contribute to its onset, and the findings of this study confirm their impact. Issues like socio-economic status, race, lack of access, health status quo, and lack of social support expose older adults to food insecurity and require interventions that offer current and future solutions. The study found that food insecurity is two times more likely to trigger poor health outcomes for older adults. The study also showed that many older adults did not have full access to programs at the federal (SNAP) or local level (food pantries/ Meals on Wheels America) as too much *red tape* affected their ability to become more food secure.

For many, food insecurity was limiting and caused them to become more dependent on others, which was not welcomed. The study highlighted food insecurity's adverse outcomes on the individual and the importance of social support to help them overcome this significant health and social issue. The data showed that much support is required and that applying a multilayered approach with a multidisciplinary team using

proven interventions can help to reduce, if not eradicate, food insecurity among older adults.

Food insecurity is preventable, and with the effective use of social support systems, affected older adults can escape the issues that come with its onset, such as malnutrition and other chronic comorbidities. The application of appropriate interventions must also integrate tangible support but ensure that emotional and informational support is also included. Fundamental resources, namely, access to transportation and affordable, nutritious foods, should be present so that affected older adults can stave off the long-lasting domino effects food security can have on the older adult, the community, and the country.

In this research, I also confirmed that food insecurity is a significant issue in older adult demography. I provided insight into integrating multifaceted approaches and interventions can help affected older adults not just tolerate food insecurity but overcome the associated risks and lead improved lives. It should be noted that if all stakeholders worked assiduously to utilize proven social systems food security could be possible for all. Stakeholders have a social responsibility to help individuals apply tools and social systems that influence their behavior and choices while improving the quality of their lives.

#### References

- Abutabenjeh, S., & Jaradat, R. (2018). Clarification of research design, research methods, and research methodology: A guide for public administration researchers and practitioners. *Teaching Public Administration*, *36*(3), 237-258.

  <a href="https://doi.org/10.1177/0144739418775787">https://doi.org/10.1177/0144739418775787</a>
- Adams, T. R., Rabin, L. A., Da Silva, V. G., Katz, M. J., Fogel, J., & Lipton, R. B. (2016). Social support buffers the impact of depressive symptoms on life satisfaction in old age. *Clinical Gerontology*, *39*(2), 139-157. <a href="https://doi.org/10.1080/07317115.2015.1073823">https://doi.org/10.1080/07317115.2015.1073823</a>
- Ahn, S., Kim, S., & Zhang, H. (2016). Changes in depressive symptoms among older adults with multiple chronic conditions: Role of positive and negative social support. *International Journal of Environmental Research and Public Health*, 14(1)16. https://doi.org/10.3390/ijerph14010016
- Akobundu, U. (2022). Perspectives on food security in older adults in the COVID-19 era:

  What we know, where we go. https://generations.asaging.org/food-security-older-adults-covid-19-era
- Allen, M. (2017). The sage encyclopedia of communication research methods (1-4).

  SAGE Publications. <a href="https://doi.org/10.4135/9781483381411">https://doi.org/10.4135/9781483381411</a>
- Amoah, P. A. (2019). The relationship among functional health literacy, self-rated health, and social support among younger and older adults in Ghana. *International Journal of Environmental Research and Public Health*, *16*(17), 1660-4601. <a href="https://doi.org/10.3390/ijerph16173188">https://doi.org/10.3390/ijerph16173188</a>

- Andress, L., & Shiri, R. (2017). Using a social-ecological model to explore upstream and downstream solutions to rural food access for the elderly. *Cogent Medicine*, 4(1)1-18. <a href="https://doi.org/10.1080/2331205X.2017.1393849">https://doi.org/10.1080/2331205X.2017.1393849</a>
- Anney, V. N. (2014). Ensuring the quality of the findings of qualitative research:

  Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies*, 5(2), 272-281.

  http://repository.costech.or.tz/handle/123456789/47720?show=full
- Arifin, S. R. M. (2018). Ethical considerations in qualitative study. *International Journal of Care Scholars*, 1(2), 30-33. https://doi.org/10.31436/ijcs.v1i2.82
- Bailey, J. S., & Burch, M. R. (2018). Research methods in applied behavior analysis.

  Routledge
- Bellamy, K., Remo, O., Nataly, M., & Kairuz, T. (2016). Seeking to understand: Using generic qualitative research to explore access to medicines and pharmacy services among resettled refugees. *International Journal of Clinical Pharmacy*, 38(3), 671-675. https://doi.org/10.1007/s11096-016-0261-1
- Benefits. (2021). Supplemental nutrition assistance program (snap). https://www.benefits.gov/benefit/361
- Berkowitz, S. A., Basu, S., Gundersen, C., & Seligman, H. K. (2019). State-level and county-level estimates of health care costs associated with food insecurity.

  \*Preventing Chronic Diseases, 16(7). <a href="http://doi.org/10.5888/pcd16.180549">http://doi.org/10.5888/pcd16.180549</a>

- Berkowitz, S. A., Seligman, H. K., Meigs, J. B., & Basu, S. (2018). Food insecurity, healthcare utilization, and high cost: A longitudinal cohort study. *American Journal of Managed Care*, 24(9), 399-404.
- Bhargava, V., & Lee, J. S. (2017). Food insecurity and health care utilization among older adults. *Journal of Applied Gerontology*, *36*(12), 1415-1432. https://doi.org/10.1177/0733464815625835
- Bird, C. L., & McClelland, J. W. (2016). Educating limited-resource older adults for better choices to lower risk of food insecurity. *International Journal of Consumer Studies*, 41, 225-233. https://doi.org/10.1111/ijcs.12333
- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, 26(13), 1802-1811. <a href="https://doi.org/10.1177/1049732316654870">https://doi.org/10.1177/1049732316654870</a>
- Bishop, N. J., & Wang, K. (2018). Food insecurity, comorbidity, and mobility limitations among older U.S. adults: Findings from the health and retirement study and health care and nutrition study. *Preventive Medicine*, *114*, 180-187.

  <a href="https://doi.org/10.1016/j.ypmed.2018.07.001">https://doi.org/10.1016/j.ypmed.2018.07.001</a>
- Boulton, E. R., Home, M., & Todd, C. (2018). Multiple influences on participating in physical activity in older age: Developing a social-ecological approach. *Health Expectations*, 21(1), 239-248. https://doi.org/10.1111/hex.12608
- Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Harvard University Press.

- Bruce, A., Beuthin, R., Sheilds, L., Molzahn, A., & Schick-Makaroff, K. (2016).

  Narrative research evolving: Evolving through narrative research. *International Journal of Qualitative Methods*. <a href="https://doi.org/10.1177/1609406916659292">https://doi.org/10.1177/1609406916659292</a>
- Burkholder, G. J., Cox, K. A., & Crawford, L. M. (2016). *The scholar-practitioner's* guide to research design. Laureate Publishing, Inc.
- Burris, M., Kihlstrom, L., Arce, K.S., Prendergast, K., Dobbins, J., McGrath, E., Renda, A., Shannon, E., Cordier, T., Song, Y., Himmelgreen, D. (2019). Food insecurity, loneliness, and social support among older adults. *Journal of Hunger & Environmental Nutrition*. <a href="https://doi.org/10.1080/19320248.2019.1595253">https://doi.org/10.1080/19320248.2019.1595253</a>
- Busetto, L., Wolfgang, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research Practice*, 2(14), 1-10. <a href="https://doi.org/10.1186/s42466-020-00059-2">https://doi.org/10.1186/s42466-020-00059-2</a>
- Buys, D. R., & Locher, J. L. (2015). What does the evidence reveal regarding home and community-based nutrition services for older adults? *Journal of Nutrition in Gerontology and Geriatrics*, *34*(2), 81-84.

  <a href="https://doi.org/10.1080/21551197.2015.1038457">https://doi.org/10.1080/21551197.2015.1038457</a>
- Callen, J. (2020). Weekly census bureau survey provides timely info on households

  during the COVID-19 pandemic. US Census Bureau.

  https://www.census.gov/library/stories/2020/05/new-household-pulse-survey-shows-concern-over-food-security-loss-of-income.html

- Campbell, E. A., Shapiro, M. J., Welsh, C., Bleich, S. N., Cobb, L. K., & Gittelsohn, J. (2017). Healthy food availability among food sources in rural Maryland counties.

  \*Journal of Hunger & Environmental Nutrition, 12(3), 328-341.
- Candela, A. G. (2019). Exploring the function of member checking. *The Qualitative Report*, 24(3), 619-628. <a href="https://doi.org/10.46743/2160-3715/2019.3726">https://doi.org/10.46743/2160-3715/2019.3726</a>
- Caperon, L., Arjya, A., Puja, K. C., Kuikel J., Newell J., Peters, R., Prestwich, A., & King, R. (2019). Developing a socio-ecological model of dietary behaviour for people living with diabetes or high blood glucose levels in urban Nepal: A qualitative investigation. *PLoS ONE 14*(3).

  https://doi.org/10.1371/journal.pone.0214142
- Chang, Y., & Hickman, H. (2018). Food insecurity and perceived diet quality among low-income older Americans with functional limitations. *Journal of Nutrition Education and Behavior*, 50(5), 476-484.

  <a href="https://doi.org/10.1016/j.jneb.2017.09.006">https://doi.org/10.1016/j.jneb.2017.09.006</a>
- Cheong, P., Coughhenour, C., Shegog, M., Ghimire, S., Sagadraca, L., & Sy, F. (2019).

  An evaluation of food insecurity and its correlates in a Filipino American study sample residing in Clark County, Nevada. *Health Equity*, *3*(1), 512-519.

  <a href="https://doi.org/10.1089/heq.2019.0074">https://doi.org/10.1089/heq.2019.0074</a>
- Chung, W.T., Gallo, W.T., Giunta, N. Canavan, M.E., Parikh, N.S., & Fahs, M.C. (2011). Linking neighborhood characteristics to food insecurity in older adults: The role of perceived safety, social cohesion, and walkability. *Journal of Urban Health:*Bulletin of the New York Academy of Medicine, 89(3), 407-418.

- Cohen, N. (2019). SNAP at the community scale: How neighborhood characteristics affect participation and food access. *American Journal of Public Health*, 109(12), 1646-1651. https://doi.org/10.2105/AJPH.2019.305363
- Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2019). Household food security in the United States in 2018. *U.S. Department of Agriculture*. Retrieved from https://www.ers.usda.gov/webdocs/publications/94849/err-270.pdf?v=2158.
- Cooper, S., Endacott, R. (2007). Generic qualitative research: A design for qualitative research in emergency care? *Emergency Medicine Journal*, 24(12). <a href="https://doi.org/10.1136/emj.2007.050641">https://doi.org/10.1136/emj.2007.050641</a>
- Connelly L. M. (2016). Trustworthiness in qualitative research. *Medsurg Nursing*, 25(6), 435-436.

  https://link.gale.com/apps/doc/A476729520/AONE?u=anon~8c4d46cd&sid=goog leScholar&xid=be3843b4
- Craviero, I., Alves, D., Amado, M., Santos, Z., Fortes, A. T., Delgado, A. P., Correia, A. (2016). Determinants, health problems, and food insecurity in urban areas of the largest city in Cape Verde. *International Journal of Environmental Research and Public Health*, 13, 1155. <a href="https://doi.org/doi:10.3390/ijerph13111155">https://doi.org/doi:10.3390/ijerph13111155</a>
- Creswell, J. W. (1998). *Qualitative inquiry & research design: Choosing among five traditions*. Thousand Oaks: SAGE Publications.
- Creswell, J. W. & Creswell, J. D. (2017). *Research Design: Qualitative, quantitative, and mixed methods approaches* (5<sup>th</sup> ed.). Germany: SAGE Publications.

- Creswell, J. W. & Poth, C. N. (2017). *Qualitative inquiry & research design: Choosing among five approaches* (4<sup>th</sup> ed.). SAGE Publications.
- Dai, Y., Zhang, C.Y., Zhang, B. Q., Zhanzhan, L., Jiang, C., & Huang, H. L. (2016).
  Social support and the self-rated health of older people: A comparative study in Tainan Taiwan and Fuzhou Fujian Province. *Medicine*, 95(31), e5074.
  <a href="https://doi.org/10.1097/MD.00000000000003881">https://doi.org/10.1097/MD.000000000000003881</a>
- Daniel, J. (2012). Chapter 4: Choosing the type of nonprobability sampling. Sampling essentials: Practical guidelines for making sampling choices. *SAGE Research Methods*. https://doi.org/10.4135/9781452272047
- Darin-Mattsson, A., Fors, S. & Kåreholt, I. (2017). Different indicators of socioeconomic status and their relative importance as determinants of health in old age. *International Journal for Equity in Health*, 173.

  <a href="https://doi.org/10.1186/s12939-017-0670-3">https://doi.org/10.1186/s12939-017-0670-3</a>
- Davis, B. L., Grutzmacher, S. K., & Munger, A. L. (2016). Utilization of social support among food insecure individuals: A qualitative examination of network strategies and appraisals. *Journal of Hunger & Environmental Nutrition*, 11(2), 162-179. https://doi.org/10.1080/19320248.2015.1066731
- Dean, E. B., French, M. T., & Mortensen, K. (2020). Food insecurity, health care utilization, and health care expenditures. *Health services research*, *55*(*Suppl 2*), 883-893. https://doi.org/10.1111/1475-6773.13283
- Department of Elder Affairs. (2020). *Older Americans Act programs*. http://elderaffairs.state.fl.us/doea/pubs/pubs/sops2020/2020\_SOPS\_B.pdf

- Drammel, W., Hamid, N. A., & Rohana, A. J. (2019). Determinants of household food insecurity and its association with child malnutrition in Sub-Saharan Africa: A review of the literature. *Current Research in Nutrition and Food Science*. https://doi.org/10.12944/CRNFSJ.7.3.02
- Dumitrescu, S. (2016). Food security 102: What is being done to reduce global food insecurity? *Food Insight*, 1-5. https://foodinsight.org/food-security-102-what-is-being-done-to-reduce-global-food-insecurity/
- Eun Jung, S., Kim, S., Bishop, A., & Hermann, J. (2018). Poor nutritional status among low-income older adults: Examining the interconnection between self-care capacity, food insecurity, and depression. *Journal of the Academy of Nutrition and Dietetics*, 119(10), 1687-1694. https://doi.org/10.1016/j.jand.2018.04.009
- Eun Shim, J., Hwang, J., & Kim, K. (2019). Objective and perceived food environment and household economic resources related to food insecurity in older adults living alone in rural areas. *BMC Geriatrics*, 19(234). <a href="https://doi.org/10.1186/s12877-019-1231-y">https://doi.org/10.1186/s12877-019-1231-y</a>
- Fanzo, J., Covic, N., Dobermann, A., Henson, S., Herrero, M., Pingali, P., & Staal, S. (2020). A research vision for food systems in the 2020s: Defying the status quo. *Global food security*, 26, 100397. https://doi.org/10.1016/j.gfs.2020.100397
- Farrigan, T. (2020). Rural education. *United States Department of Agriculture*. https://www.ers.usda.gov/webdocs/publications/83078/eib-171.pdf?v=2228.3
- Feeding America. (2020a). Food insecurity in the United States. http://map.feedingamerica.org

- Feeding America. (2020b). The impact of the coronavirus on food insecurity in 2020 and 2021. Food Insecurity and Poverty in the US.

  https://www.feedingamerica.org/sites/default/files/202103/National%20Projections%20Brief\_3.9.2021\_0.pdf
- Feeding South Florida. (2018). South Florida continues to face hunger challenges.

  https://feedingsouthflorida.org/south-florida-continues-to-face-hunger-challenges/
- Fernandes, S.G., Rodriques, A.M., Nunes, C., Santos, O., Gregorio, M.J., de Sousa, R.D., Dias, S., & Canhao, H. (2018). Food insecurity in older adults: results from the epidemiology of chronic diseases cohort study 3. *Frontiers in Medicine*, *5*(203). https://doi.org/10.3389/fmed.2018.00203
- Finlay, J.M., & Kobayashi, L.C. (2018). Social isolation and loneliness in later life: A parallel convergent mixed-methods case study of older adults and their residential contexts in the Minneapolis metropolitan area, USA. *Social Science & Medicine*, 208, 25-33. <a href="https://doi.org/10.1016/j.socscimed.2018.05.010">https://doi.org/10.1016/j.socscimed.2018.05.010</a>
- Food and Agriculture Organization of the United Nations (FAO). (2019). The state of food security and nutrition in the world: Safeguarding against economic slowdowns and downturns. http://www.fao.org/3/ca5162en/ca5162en.pdf
- Forero, R., Nahidi, S., De Costa, J., Mohsin, M., Fitzgerald, G., Gibson, N., McCarthy, S., & Aboagye-Sarfo, P. (2018). Application of four-dimension criteria to assess rigour of qualitative research in emergency medicine. *BMC Health Services*\*Research, 18(1), 120. <a href="https://doi.org/10.1186/s12913-018-2915-2">https://doi.org/10.1186/s12913-018-2915-2</a>

- Frith, E., & Loprinzi, P.D. (2018). Food insecurity and cognitive function in older adults:

  Brief report. *Clinical Nutrition*, *37*(5), 1765-1768.

  <a href="https://doi.org/10.1016/j.clnu.2017.07.001">https://doi.org/10.1016/j.clnu.2017.07.001</a>
- Fusch, P.I., & Ness, L.R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9), 1408-1416. http://www.nova.edu/ssss/QR/QR20/9/fusch1.pdf
- Galdas, P. (2017). Revisiting bias in qualitative research: Reflections on its relationship with Funding and impact. *International Journal of Qualitative Methods*, 16(1). https://doi.org/10.1177/1609406917748992
- Gallagher, M. (2020). Florida COVID-19 employment disruption & resulting meal deficit analysis: A granular analysis across the state. *Feeding Florida*. https://www.feedingflorida.org/cms/resources/blog/may-7-2020-executive-summary.pdf.
- Ganhao-Arranhado, S., Paul, C., Ramalho, R., Pereira, P. (2018). Food insecurity, weight and nutritional status among older adults attending senior centers in Lisbon.

  \*Archives of Gerontology and Geriatrics, 78, 81-88.\*

  https://doi.org/10.1016/j.archger.2018.06.004
- Garcia, S.P., Haddix, A., & Barnett, K. (2018). Incremental health care costs associated with food insecurity and chronic conditions among older adults. *Preventing Chronic Disease*, *15*(308). https://doi.org/10.5888/pcd15.180058

- Gilleard, C. & Higgs, P. (2016). Connecting life span development with the sociology of the life course: a new direction. *Sociology*, *50*(2), 301-315. https://doi.org/10.1177/0038038515577906
- Gillen, M., & Dwyer, J.W. (2018). *The Future of aging is Florida*. University of Florida. https://edis.ifas.ufl.edu/pdffiles/FY/FY62400.pdf.
- Giroux, S., Waldman, K., Burris, M., Valliant, J.C.D., Babb, A.M., Stafford, P., et al. (2022). Food security and well-being among older, rural Americans before and during the COVID-19 pandemic. *PLoS ONE 17*(9), e0274020.

  <a href="https://doi.org/10.1371/journal.pone.0274020">https://doi.org/10.1371/journal.pone.0274020</a>
- Given, L. M. (2008). *The SAGE encyclopedia of qualitative research methods*. SAGE Publications. <a href="https://doi.org/10.4135/9781412963909">https://doi.org/10.4135/9781412963909</a>
- Glanz, K., Rimer, B.K., & K. Viswanath. (2015). *Health behavior: Theory, research, and practice* (5<sup>th</sup> ed.). John Wiley & Sons, Inc.
- Goldberg, S.L., & Mawn, B.E. (2015). Predictors of food insecurity among older adults in the United States. *Public Health Nursing*, *32*(5), 397-407. <a href="https://doiorg/10.1111/phn.12173">https://doiorg/10.1111/phn.12173</a>
- Golden, S.D., & Earp, J.L. (2012). Social ecological approaches to individuals and their contexts: Twenty years of health education & behavior health promotion interventions. *Health Education & Behavior*, *39*(3), 364-372.

  <a href="https://doi.org/10.1177/1090198111418634">https://doi.org/10.1177/1090198111418634</a>

- Gyasi, R.M., Obeng, B., & Yeboah, J.Y. (2020). Impact of food insecurity with hunger on mental distress among community-dwelling older adults. *PLOS ONE*, *15*(3). | <a href="https://doi.org/10.1371/journal.pone.0229840">https://doi.org/10.1371/journal.pone.0229840</a>
- Gundersen, C. (2021). The impact of the coronavirus on food insecurity in 2020 & 2021.

  \*Feeding America.\* https://www.feedingamerica.org/sites/default/files/202103/National%20Projections%20Brief\_3.9.2021\_0.pdf
- Gundersen, C., Engelhard, E., & Hake, M. (2017). The determinants of food insecurity among food bank clients in the United States. *Journal of Consumer Affairs*, 51(3), 501-518. https://doi.org/10.1111/joca.12157
- Hagger, M. S., Smith, S. R., Keech, J. J., Moyers, S. A., & Hamilton, K. (2020).
   Predicting social distancing intention and behavior during the COVID-19
   pandemic: An integrated social cognition model. *Annals of Behavioral Medicine:* A Publication of the Society of Behavioral Medicine, 54(10), 713-727.
   <a href="https://doi.org/10.1093/abm/kaaa073">https://doi.org/10.1093/abm/kaaa073</a>
- Hammarberg, K., Kirkman, M., & de Lacey, S. (2016). Qualitative research methods: when to use them and how to judge them. *Human Reproduction*, *31*(3), 494-501. https://doi.org/10.1093/humrep/dev334
- Harmon, A. (2020). Vulnerable populations. Salem Press Encyclopedia.
- Hayden, J. (2009). *Introduction to health behavior theory*. Jones & Bartlett Publishers.
- Heale, R., Twycross, A. (2018). What is a case study? *Evidence-Based Nursing 21*, 7-8. <a href="https://doi.org/10.1136/eb-2017-102845">https://doi.org/10.1136/eb-2017-102845</a>

- Health Research & Educational Trust. (2017). Social determinants of health series: Food insecurity and the role of hospitals. *American Hospital Association*. http://www.hpoe.org/Reports-HPOE/2017/determinants-health-food-insecurity-role-of-hospitals.pdf.
- Healthy People. (2020). *Food insecurity*. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/food-insecurity.
- Hessol, N.A., Zepf, R., Zobell, E., Weiser, S.D., & John, M.D. (2017). Food insecurity and aging outcomes in older adults living with HIV. *AIDS Behavior*, 21(12), 3506-3514. <a href="https://doi.org/0.1007/s10461-017-1838-y">https://doi.org/0.1007/s10461-017-1838-y</a>
- Hickman, H., & Chang, Y. (2016). Functional limitation, living arrangement, and food insecurity among low-income older Americans. *Journal of the Academy of Nutrition & Dietetics*, 116(9), A19. https://doi.org/10.1016/j.jand.2016.06.055
- Himmelstein, G. (2019). Effect of the affordable care act's Medicaid expansions on food security, 2010-2016. *American Journal of Public Health*, 109(9), 1243-1248. https://doi.org/10.2105/AJPH.2019.305168
- Holben, D.H., & Marshall, M.B. (2017). Position of the academy of nutrition and dietetics: Food insecurity in the United States. *Journal of the Academy of Nutrition and Dietetics*. http://doi.org/10.1016/j.jand.2017.09.027
- Hunt, B.R., Benjamins, M.R., Khan, S., & Hirschtick, J.L. (2019). Predictors of food insecurity in selected Chicago community areas. *Journal of Nutrition Education and Behavior*, 51(3), 287-299. https://doi.org/10.1016/j.jneb.2018.08.005

- Hutt, P. B., Merrill, R.A., & Grossman, L.A. (2014). *Food and drug law* (4th ed.). Foundation Press.
- Ignatow, G., & Mihalcea, R. (2018). An introduction to text mining: research design, data collection, and analysis. Thousand Oaks: SAGE Publications, Inc.
- Jaarsveld, V., & Martins, G. (2020). The Effects of covid-19 among the elderly population: A case for closing the digital divide. *Frontiers in Psychiatry*. https://doi.org/10.3389/fpsyt.2020.577427
- Jackson, J.A., Branscum, A., Tang, A., & Smit, E. (2019). Food insecurity and physical functioning limitations among older U.S. adults. *Preventive Medicine Reports*, 14, 100829. <a href="https://doi.org/10.1016/j.pmedr.2019.100829">https://doi.org/10.1016/j.pmedr.2019.100829</a>
- Jih, J., Stijacic-Cenzer, I., Seligman, H.K., Boscardin, W.J., & Nguyen, T.T. (2018).
   Chronic disease burden predicts food insecurity among older adults. *Public Health Nutrition*, 21(9), 1737-1742. <a href="https://doi.org/10.1017/S1368980017004062">https://doi.org/10.1017/S1368980017004062</a>
- Kahlke, R.M. (2014). Generic qualitative approaches: Pitfalls and benefits of methodological mixology. *International Journal of Qualitative Methods*, 13(1), 37-52. https://doi.org/s10.1177/160940691401300119
- Karpyn, A. E., Riser, D., Tracy, T., Wang, R., & Shen, Y. E. (2019). The changing landscape of food deserts. *UNSCN Nutrition*, *44*, 46-53. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7299236/.
- Kaur, J., Kaur, M., Chakrapani, V., & Kumar, R. (2020). Multilevel influences on fat, sugar, salt, fruit, and vegetable consumption behaviors among urban Indians:

- Application of the social-ecological model. *Health Communication*, 10(2). https://doi-org/10.1177/2158244020919526
- Kennedy, D.M. (2016). Is it any clearer? Generic qualitative inquiry and the Vsaieedc model of data analysis. https://doi.org/10.46743/2160-3715/2016.2444
- Keith-Cummings, B., Llobrera, J., & Dean, S. (2019). Links of the supplemental nutrition assistance program with food insecurity, poverty, and health: Evidence and potential. *American Journal of Public Health*, 109(2), 1636-1640.

  <a href="https://doi.org/10.2105/AJPH.2019.305325">https://doi.org/10.2105/AJPH.2019.305325</a>
- Kim, Y.B., & Lee, S.H. (2019). Social support network types and depressive symptoms among community-dwelling older adults in South Korea. *Asia Pacific Journal of Public Health*, *31*(4), 367-375. <a href="https://doi-org/10.1177/1010539519841287">https://doi-org/10.1177/1010539519841287</a>
- Kivunja, C., & Kuyini, A.B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26-41. <a href="https://doi.org/10.5430/ijhe.v6n5p26">https://doi.org/10.5430/ijhe.v6n5p26</a>
- Knorr, D., Khoo, C.S.H., & Augustin, M.A. (2018). Food for an urban planet: Challenges and research opportunities. *Frontiers Nutrition*, 4.
  <a href="https://doi.org/10.3389/fnut.2017.00073">https://doi.org/10.3389/fnut.2017.00073</a>
- Koller, S., & Dutra-Thomé, L. (2018). Social support. In M. Bornstein (Ed.), The SAGE encyclopedia of lifespan human development, 2097-2098.
  <a href="https://doi.org/10.4135/9781506307633.n778">https://doi.org/10.4135/9781506307633.n778</a>

- Korstjens, I., & Moser, A. (2018) Series: Practical guidance to qualitative research. Part

  4: Trustworthiness and publishing. *European Journal of General Practice*, 24(1),

  120-124. https://doi.org/10.1080/13814788.2017.1375092
- Kregg-Byers, C.M. (2014). Predictors of food security status in older adults living in the Northeast United States. *University of Pittsburgh School of Nursing*.
- Lampert, T., Costa, J., Santos, O., Sousa, J., Ribeiro, T., & Freire, E. (2021). Evidence on the contribution of community gardens to promote physical and mental health and well-being of non-institutionalized individuals: A systematic review. *PloS One*, *16*(8), e0255621. https://doi.org/10.1371/journal.pone.0255621
- Leddy, A.M., Whittle, H.J., Shieh, J., Ramirez, C., Ofotokun, I., & Weiser, S.D. (2020).
  Exploring the role of social capital in managing food insecurity among older
  women in the United States. Social Science & Medicine, 265, 114492.
  <a href="https://doi.org/10.1016/j.socscimed.2020.113492">https://doi.org/10.1016/j.socscimed.2020.113492</a>
- Lee, J.S. (2022a). Food insecurity in older adults. *The Journal of Nutrition*, 152(8),1808-1809. https://doi.org/10.1093/jn/nxac112
- Lee, J.J.Y., Shen, S. & Nishita, C. (2022b). Development of older adult food insecurity index to assess food insecurity of older adults. *Journal of Nutrition, Health & Aging*, 26, 739-746. https://doi.org/10.1007/s12603-022-1816-6
- Leung, C.W., Kullgren, J.T., Malani, D.N., Singer, D.C., Kirch, M., Solway, E., & Wolfson, J. A. (2020). Food insecurity is associated with multiple chronic conditions and physical health status among older US adults. *Preventive Medicine Reports*, 20, 101211. <a href="https://doi.org/10.1016/j.pmedr.2020.101211">https://doi.org/10.1016/j.pmedr.2020.101211</a>

- Leung, C. W., & Wolfson, J. A. (2021). Food insecurity among older adults: 10-Year national trends and associations with diet quality. *Journal of the American Geriatrics Society*, 69(4), 964-971. <a href="https://doi.org/10.1111/jgs.16971">https://doi.org/10.1111/jgs.16971</a>
- Liu, L., Gou, Z., & Zuo, J. (2016). Social support mediates loneliness and depression in elderly people. *Journal of Health Psychology*. 21(5), 750-758.

  <a href="https://doi.org/10.1177/1359105314536941">https://doi.org/10.1177/1359105314536941</a>
- Liu, L., Wei, W., & Chenzhe, X. (2019). Perceived health and life satisfaction of elderly people: Testing the moderating effects of social support, attitudes toward aging, and senior privilege. *Journal of Geriatric Psychiatry & Neurology*, 33(3), 144-154. https://doi.org/10.1177/0891988719866926
- Lloyd, J.L. (2019). From farms to food deserts: food insecurity and older rural Americans. *Generations*, 43(2), 24-32.
- Lopez-Neyman, S., & Warren, C.A. (2016). Barriers and advantages to student participation in the school breakfast program based on the social-ecological model: A review of the literature. *The Journal of Child Nutrition & Management*, 80(2).
  - $https://school nutrition.org/uploaded Files/5\_News\_and\_Publications/4\_The\_Journ\\ al\_of\_Child\_Nutrition\_and\_Management/Fall\_2016/Barriers and Advantages to Student Participation.pdf$
- Lund, T.B., Holm, L., Tetens, I., Smed, S., Nielsen, A.L. (2018). Food insecurity in Denmark- socio-demographic determinants and associations with eating- and

- health-related variables. *European Journal of Public Health*, 28(2), 283-288. https://doi:10.1093/eurpub/ckx121
- Mao, X., & Han, W.J. (2018). Living arrangements and older adults' psychological well-being and life satisfaction in China: Does social support matter? *Family Relations*, 67(4), 567-584. <a href="https://doi.org/10.1111/fare.12326">https://doi.org/10.1111/fare.12326</a>
- Mason, M. (2010). Sample size and saturation in PhD studies using qualitative interviews. Forum Qualitative Sozialforschung/Forum: Qualitative Social Research, 11(3). https://doi.org/10.17169/fqs-11.3.1428
- Meals on Wheels America. (2017). *Hunger in older adults: Challenges and opportunities*for the aging services network.

  https://www.mealsonwheelsamerica.org/docs/defaultsource/research/hungerinolderadults-fullreport-feb2017.pdf?sfvrsn=2.
- McLeroy, K.R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, *15*(4), 351-377. https://doi.org/10.1177/109019818801500401
- Merriam, S.B., & Grenier, R.S. (2019). *Qualitative research in practice: Examples for discussion and analysis* (2<sup>nd</sup> ed.). John Wiley & Sons.
- Miller, A.J., Durepos, G., & Wiebe, E. (2010). Coding: Open coding. *Encyclopedia of Case Study Research*. <a href="https://doi.org/10.4135/9781412957397.n55">https://doi.org/10.4135/9781412957397.n55</a>
- Miller, L.M.S., Tancredi, D.J., Kaiser, L.L., & Tseng, J.T. (2020). Midlife vulnerability and food insecurity: Findings from low-income adults in the US National Health Interview Survey. *PLoS ONE*. https://doi.org/10.1371/journal.pone.0233029

- Morris, A.M., Engelberg, J.K., Schmitthenner, B., Dosa, D., Gadbois, E., Shield, R.R., Akobundu, U., & Thomas, K.S. (2019). Leveraging home-delivered meal programs to address unmet needs for at-risk older adults: preliminary data.

  \*\*Journal of the American Geriatrics Society, 67(9), 1946-1952.\*\*

  https://doi.org/10.1111/jgs.16013
- Morales, D.X., Morales, S.A., & Beltran, T.F. (2020). Racial/ethnic disparities in household food insecurity during the COVID-19 pandemic: A nationally representative study. *Journal of Racial and Ethnic Health Disparities*, 1-15. <a href="https://doi.org/10.1007/s40615-020-00892-7">https://doi.org/10.1007/s40615-020-00892-7</a>
- Morgan, L.A., & Kunkel, S.R. (2016). *Aging, society, and the life course* (5<sup>th</sup> ed.). Springer Publishing Company.
- Murthy, V.H. (2016). Food insecurity: A public health issue. *Public Health Reports*, 131(5), 655-657. https://doi.org/10.1177/0033354916664154
- Myers, A., Greiman, L., von Reichert, C., and Seekins, T. (2016). Rural matters: The geography of disability in rural America, Missoula, Mt. *The University of Montana Rural Institute for Inclusive Communities*.

  https://rtc.ruralinstitute.umt.edu/research-findings/geography/.
- Na, M., Miller, M., Ballard, T., Mitchell, D.C., Hung, Y.W., & Melgar-Quinonez, H. (2018). Does social support modify the relationship between food insecurity and poor mental health? Evidence from thirty-nine Sub-Saharan African countries.

  \*Public Health Nutrition, 22(5), 874-881.

https://doi.org/10.1017/S1368980018000277X

- Naderifar, M., Goli, H., Fereshteh, G. (2017). Snowball sampling: A purposeful method of sampling in qualitative research. *Strides in Development of Medical Education*, 14(3). https://doi.org/10.5812/sdme.67670
- Nagata, J.M., Fiorella, K.J. Salmen, C.R., Hickey, M.D., Mattah, B., Magerenge, R.,
  Milner, E., Weiser, S.D., Bukus, E.A., & Cohen, C.R. (2015). Around the table:
  Food insecurity, socio-economic status, and instrumental social support among
  women living in a rural Kenyan island community. *Ecology of Food and*Nutrition, 54(4), 358-369. https://doi.org/10.1080/03670244.2014.995790
- Nagata, J.M., Seligman, H.K., Weiser, S.D. (2020). Perspective: The convergence of coronavirus disease 2019 (COVID-19) and food insecurity in the United States.

  \*Advances in Nutrition\*, 126. <a href="https://doi-org/10.1093/advances/nmaa126">https://doi-org/10.1093/advances/nmaa126</a>
- National Council on Aging (NOCA). (2022). *Get the facts on food insecurity and older adults*. https://ncoa.org/article/what-is-food-insecurity-get-the-facts
- National Institute on Minority Health and Health Disparities (NIMHHD). (2023). Food accessibility, insecurity, and health outcomes.

  https://www.nimhd.nih.gov/resources/understanding-health-disparities/food-accessibility-insecurity-and-health-outcomes.html
- Natow, R. S. (2020). The use of triangulation in qualitative studies employing elite interviews. *Qualitative Research*, 20(2), 160–173. https://doi.org/10.1177/1468794119830077

- Neubauer, B.E., Witkop, C.T., & Varpio, L. (2019). How phenomenology can help us learn from the experiences of others. *Perspectives on Medical Education*, 8(18). https://doi.org/10.1007/s40037-019-0509-2
- Nyambe, A., Van Hal, G., & Kampen, J.K. (2016). Screening and vaccination as determined by the social-ecological model and the theory of triadic influence: A systematic review. *BMC Public Health*, 16(1166). <a href="https://doi.org/10.1186/s12889-016-3802-6">https://doi.org/10.1186/s12889-016-3802-6</a>
- Nyirenda, L., Kumar, M. B., Theobald, S., Sarker, M., Simwinga, M., Kumwenda, M., Johnson, C., Hatzold, K., Corbett, E. L., Sibanda, E., & Taegtmeyer, M. (2020).
  Using research networks to generate trustworthy qualitative public health research findings from multiple contexts. *BMC Medical Research Methodology*, 20(1), 13.
  <a href="https://doi.org/10.1186/s12874-019-0895-5">https://doi.org/10.1186/s12874-019-0895-5</a>
- Octavie, B., Assoumou, M.T., B., Coughenour, C., Godbole, A., & McDonough, I.

  (2023). Senior food insecurity in the USA: A systematic literature review. *Public Health Nutrition*, 26(1), 229-245. https://doi.org/10.1017/S1368980022002415
- Pak, T.Y., & Kim, G.S. (2020). Food stamps, food insecurity, and health outcomes among elderly Americans. *Preventive Medicine*, *130*, 105871. https://doi.org/10.1016/j.ypmed.2019.105871
- Pantell, M.S., & Shields-Zeeman, L. (2020). Maintaining social connections in the setting of COVID-19 social distancing: a call to action. *American Journal of Public Health*, 110(9), 1367-1368. https://doi.org/10.2105/AJPH.2020.305844

- Parks, C.A., Stern, K.L., Fricke, H.E., Clauren, W., & Yaroch, A.L. (2020). Healthy food incentive programs: findings from food insecurity nutrition incentive programs across the United States. *Health Promotion Practice*, 21(3), 421-429.
  <a href="https://doi.org/10.1177/1524839919898207">https://doi.org/10.1177/1524839919898207</a>
- Patton, M.Q. (2015). Qualitative research & evaluation methods: Integrating theory and practice (4<sup>th</sup> ed.). SAGE Publications, Inc.
- Percy, W.H., Kostere, K., & Kostere, S. (2015). Generic qualitative research in psychology. *The Qualitative Report*, 20(2), 76-85. https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=2097&context=tqr.
- Petersen, C.L., Brooks, J.M., Titus, A.J., Vasquez, E., Batsis, J.A. (2019). Relationship between food insecurity and functional limitations in older adults from 2005-2014 NHANES. *Journal of Nutrition, Gerontology and Geriatrics*, 38(3), 231-246. https://doi.org/10.1080/21551197.2019.1617219
- Phillippi, J., & Lauderdale, J. (2018). A Guide to field notes for qualitative research:

  Context and conversation. *Qualitative Health Research*, 28(3), 381-388.

  https://doi.org/10.1177/1049732317697102
- Pilcher, J.J., & Bryant, S.A. (2016). Implications of social support as a self-control resource. *Frontiers in Behavioral Neuroscience*, *10*, 228. https://doi.org/10.3389/fnbeh.2016.00228
- Pillemer, S.C., & Holtzer, R. (2016). The differential relationships of dimensions of perceived social support with cognitive function among older adults. *Aging* &

Mental Health, 20(7), 727-735.

#### http://dx.doi.org/10.1080/13607863.2015.1033683

- Pirrie, M., Harrison, L., Angeles, R., Marzanek, F., Ziesmann, A., & Agarwal, G. (2020).

  Poverty and food insecurity of older adults living in social housing in Ontario: a cross-sectional study. *BMC Public Health* 20(1).1320.

  <a href="https://doi.org/10.1186/s12889-020-09437-3">https://doi.org/10.1186/s12889-020-09437-3</a>
- Pooler, J.A., Hartline-Grafton, H., Debor, M., Sudore, R.L., & Seligman, H.K. (2018).
  Food insecurity: A key social determinant of health for older adults. *Journal of the American Geriatrics Society*, 67(3), 421-424.
  <a href="https://doi.org/10.1111/jgs.15736">https://doi.org/10.1111/jgs.15736</a>
- Purdam, K., Garratt, E. A., & Esmail, A. (2016). Hungry? Food insecurity, social stigma, and embarrassment in the UK. *Sociology*, 1-17. https://doi.org/10.1177/0038038515594092
- Odoms-Young, A., & Bruce, M. A. (2018). Examining the impact of structural racism on food insecurity: Implications for addressing racial/ethnic disparities. *Family & Community Health*, 41(2), 3-6. https://doi.org/10.1097/FCH.0000000000000183
- O'Kane, G. (2016). A moveable feast: Exploring barriers and enablers to food citizenship. *Appetite*, 105(1), 674-687. https://doi.org/10.1016/j.appet.2016.07.002
- Oemichen, M., & Smith, C. (2016). Investigation of the food choice, promoters and barriers to food access issues, and food insecurity among low-income, free-living

- Minnesotan seniors. *Journal of Nutrition Education & Behavior*, 48(6), 397-404. https://doi.org/10.1016/j.jneb.2016.02.010
- Ravitch, S.M. & Carl, N.M. (2016). *Qualitative research: Bridging the conceptual, theoretical, and methodological.* Sage Publications.
- Rimaz, S., Gharibriavaz, H., Abolghasemi, J., & Seraji, S. (2015). The relationship of different dimensions of social support with older adults' quality of life in the 8th district of Tehran in 2013. *Journal of Education and Community Health*, 2(1), 29-37. https://jech.umsha.ac.ir/Article/A-10-141-1
- Rhone, A. (2019). Definition: Food access. Documentation. *United States Department of Agriculture*. https://www.ers.usda.gov/data-products/food-access-research-atlas/documentation/#.
- Rhone, A., Ploeg, M.V., Dicken, C., Williams, R., & Breneman, V. (2017). Low-income and low-supermarket-access census tracts, 2010-2015. *United States Department of Agriculture*. https://www.ers.usda.gov/publications/pub-details/?pubid=82100.
- Roger, K., Bone, T. A., Heinonen, T., Schwartz, K., Slater, J., & Thakrar, S. (2018).

  Exploring identity: What we do as qualitative researchers. *The Qualitative Report*, 23(3), 532-546. https://doi.org/10.46743/2160-3715/2018.2923
- Rosas, C., & Neri, A. (2019). Quality of life, burden, family emotional support: A model for older adults who are caregivers. *Revista Brasileira de Enfermagem*, 72(2), 169-176. https://doi.org/10.1590/0034-7167-2018-0439

- Rugel, E.J., Carpiano, R.M. (2015). Gender differences in the roles for social support in ensuring adequate fruit and vegetable consumption among older adult Canadians.

  Appetite, 92(1), 102-109. <a href="https://doi.org/10.1016/j.appet.2015.05.011">https://doi.org/10.1016/j.appet.2015.05.011</a>
- Sadarangani, T., Johnson, R., Jordan, J., Chong, S.K., Brody, A., & Trinh-Sherrin, C. (2020). Using the social-ecological model to identify drivers of nutrition risk in adult day settings serving East Asian older adults. *Research in Gerontological Nursing*, 13(3), 146-157. <a href="https://doi.org10.3928/19404921-20191210-02">https://doi.org10.3928/19404921-20191210-02</a>
- Salihu, H. M., Adegoke, K., Turner, D., Al Agili, D., & Berry, E. L. (2017). Social support and health-related quality of life among low-income women: Findings from community-based participatory research. *Southern Medical Journal*, *110*(4), 270-277. https://doi.org/10.14423/SMJ.000000000000000035
- Savelle, R., & O'Neal, L.J. (n.d.). Food insecurity and obesity. *Family Youth and Community Sciences*. *University of Florida*. https://edis.ifas.ufl.edu/fy1473.
- Schwartz, N., Buliung, R., & Wilson, K. (2019). Disability and food access and insecurity: A scoping review of the literature. *Health & Place*, *57*, 107-121. https://doi.org/10.1016/j.healthplace.2019.03.011
- Second Harvest. (2020). The hunger picture in Central Florida.

  https://www.feedhopenow.org/site/SPageServer/PageServer?pagename=about\_hu
- Sepúlveda-Loyola, W., Rodríguez-Sánchez, I., Pérez-Rodríguez, P., Ganz, F., Torralba, R., Oliveira, D. V., & Rodríguez-Mañas, L. (2020). Impact of social isolation due to COVID-19 on health in older people: Mental and physical effects and

- recommendations. *The Journal of Nutrition, Health & Aging*, 1–10. https://doi.org/10.1007/s12603-020-1469-2
- Sengupta, P. (2016). Food security among the elderly: An area of concern. *Journal of Gerontology & Geriatric Research*, 5(4), 320. <a href="https://doi.org/10.4172/2167-7182.1000320">https://doi.org/10.4172/2167-7182.1000320</a>
- Shahar, S., Vanoh, D., Mat Ludin, A. F., Singh, D., & Hamid, T. A. (2019). Factors associated with poor socioeconomic status among Malaysian older adults: an analysis according to urban and rural settings. *BMC Public Health*, *19*(*4*), 549. <a href="https://doi.org/10.1186/s12889-019-6866-2">https://doi.org/10.1186/s12889-019-6866-2</a>
- Shirgaokar, M., Dobbs, B., Anderson, L., & Hussey, E. (2020). Do rural older adults take fewer trips than their urban counterparts for lack of a ride? *Journal of Transport Geography*, 87, 102819. <a href="https://doi.org/10.1016/j.jtrangeo.2020.102819">https://doi.org/10.1016/j.jtrangeo.2020.102819</a>
- Smith, A., & Trevelyan, E. (2019). In some states, more than half of older residents live in rural areas: Older population in rural America. *United States Census Bureau*.

  Retrieved from https://www.census.gov/library/stories/2019/10/older-population-in-rural-america.html.
- Sonik, R.A. (2018). Massachusetts inpatient Medicaid cost response to increased supplemental nutrition assistance program benefits. *American Journal of Public Health*, 106(3), 443-448. https://doi.org/10.2105/AJPH.2015.302990
- Stolz, E., Mayerl, H., Waxenegger, A., & Freidl, W. (2017). Explaining the impact of poverty on old-age frailty in Europe: Material, psychosocial and behavioral

- factors. European Journal of Public Health, 27(6), 1003-1009. https://doi.org/10.1093/eurpub/ckx079
- Tarasuk, V., Fafard St-Germain, AA. & Mitchell, A. (2019). Geographic and sociodemographic predictors of household food insecurity in Canada, 2011-12. *BMC Public Health* 19(12). <a href="https://doi.org/10.1186/s12889-018-6344-2">https://doi.org/10.1186/s12889-018-6344-2</a>
- Tarrence, J. (2019). Social disparities in emotional isolation and sources of support among older adults in the us. *Conference Papers American Sociological Association*, 1-41. https://eds-b-ebscohost-com.ezp.waldenulibrary.org/eds/pdfviewer/pdfviewer?vid=3&sid=ba41ebac-afcd-45c3-b8d3-7b17d3f36e8d%40sessionmgr101.
- Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., Varpio, L. (2015).

  Choosing a qualitative research. *Journal of Graduate Medical Education*, 7(4), 669-670. <a href="https://doi.org/10.4300/JGME-D-15-00414.1">https://doi.org/10.4300/JGME-D-15-00414.1</a>
- Tie, C., Birks, Y. M., & Francis, K. (2019). Grounded theory research: A design framework for novice researchers. *SAGE Open Medicine*. https://doi.org/10.1177/2050312118822927
- Timonen, V., Foley, G., & Conlon, C. (2018). Challenges when using grounded theory: A pragmatic introduction to doing GT research. *International Journal of Qualitative Methods*. https://doi.org/10.1177/1609406918758086
- Tkatch, R., Musich, S., MacLeod, S., Kraemer, S., Hawkins, K., Wicker, E.R.,
  Armstrong, D.G. (2017). A qualitative study to examine older adults' perceptions

- of health: Keys to aging successfully. *Geriatric Nursing*, *38*(6), 485-490. https://doi.org/10.1016/j.gerinurse.2017.02.009
- Tomaszewski, L. E., Zarestky, J., & Gonzalez, E. (2020). Planning qualitative research:

  Design and decision making for new researchers. *International Journal of Qualitative Methods*, 19. https://doi.org/10.1177/1609406920967174
- Trad, N.K., Wharam, J.F., & Druss, B. (2020). Addressing loneliness in the era of covid19. *Social Determinants of Health*.

  https://doi.org/10.1001/jamahealthforum.2020.0631
- Tucher, E.L., Keeney, T., Cohen, A.J., & Thomas, K.S. (2020). Conceptualizing food insecurity among older adults: Development of a summary indicator in the national health and aging trends study. *The Journals of Gerontology: Series B*, gbaa147. https://doi.org/10.1093/geronb/gbaa147
- Ungvarsky, J. (2020). Snowball sampling. Salem Press Encyclopedia.
- United States Department of Agriculture. (2019). *Definitions of food security*. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security/.
- United States Department of Agriculture. (2020). Supplemental Nutrition Assistance Program (SNAP). https://www.ers.usda.gov/topics/food-nutrition-assistance/supplemental-nutrition-assistance-program-snap/.
- United States Census Bureau. (2020). About. *Metropolitan & Micropolitan*. https://www.census.gov/programs-surveys/metro-micro/about.html.

- United States Census Bureau. (2021). How does the Census Bureau define "rural". *Rural America*. Retrieved from https://mtgis-portal.geo.census.gov/arcgis/apps/MapSeries/index.html?appid=49cd4bc9c8eb44 4ab51218c1d5001ef6.
- Vasileiou, K., Barnett, J., Thorpe, S. (2018). Characterizing and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year period. *BMC Medical Research Methodology*, 18, 148. <a href="https://doi.org/10.1186/s12874-018-0594-7">https://doi.org/10.1186/s12874-018-0594-7</a>
- Vieira, E.R., Vaccaro, J.A., Zarini, G.G., & Huffman, F.G. (2017). Health indicators of U.S. older adults who received or did not receive meals funded by the older Americans Act. *Journal of Aging Research*, 2017. https://doi.org/10.1155/2017/2160819
- Wang, Q., & Jeon, H.J. (2020). Bias in bias recognition: People view others but not themselves as biased by preexisting beliefs and social stigmas. *PLOS ONE*, 15(10), 46-50. https://doi.org/10.1371/journal.pone.0240232
- Warmoth, K., Lang, I.A., Phoenix, C., Abraham, C., Andrew, M.K., Hubbard, R., & Tarrant, M. (2015). Thinking you're old and frail: A qualitative study of frailty in older adults. *Ageing and Society*, 1-26. https://doi.org/10.1017/S0144686X1500046X.
- Weirich, M., & Benson, W. (2019). Rural America: Secure in a local safety net?

  Generations Journal of the American Society on Aging, 43(2), 40-45.

- Williams, H. (2021). The meaning of "phenomenology": Qualitative and philosophical phenomenological research methods. *The Qualitative Report*, 26(2), 366-385. https://doi.org/10.46743/2160-3715/2021.4587
- Wilson, K.O. (2017). Community food environments and healthy food access among older adults: A review of the evidence for the senior farmers' market nutrition program (SFMNP). *Social Work in Health Care*, *56*(4), 227-243. <a href="https://doi.org/10.1080/00981389.2016.1265631">https://doi.org/10.1080/00981389.2016.1265631</a>
- Wolfson, J.A. (2020). Food insecurity is associated with multiple chronic conditions and physical health status among older US adults. *Preventive Medicine Reports*, 20, 101211. https://doi.org/10.1016/j.pmedr.2020.101211
- Wolfson, J.A., Garcia, T., & Leung, C.W. (2021). Food insecurity is associated with depression, anxiety, and stress: Evidence from the early days of the COVID-19 pandemic in the United States. *Health Equity*, *5*(1), 64-71. <a href="https://doi.org/10.1089/heq.2020.0059">https://doi.org/10.1089/heq.2020.0059</a>
- Wolfson, J.A., & Leung, C.W. (2020). Food insecurity and COVID-19: Disparities in early effects for us adults. *Nutrients*, 12(6), 1648.

  https://doi.org/10.3390/nu12061648
- Wood, J., Brown, J.R., Band, M., & Suguri, V. (2016). Older adult transportation: Results of an agency survey. *Journal of Public Transportation*, 19(2), 154-167. <a href="https://doi.org/10.5038/2375-0901.19.2.9">https://doi.org/10.5038/2375-0901.19.2.9</a>

- World Food Programme. (WFP). (2020). The state of food security and nutrition in the world: Transforming food systems for affordable healthy diets.

  https://docs.wfp.org/api/documents/WFP-0000117811/download/
- Wright, S., O'Brien, B., Nimmon, L., Law, M., & Mylopoulos, M. (2016). Research design considerations. *Journal of Graduate Medical Education*, 8(1), 97-98. https://doi.org/10.4300/JGME-D-15-00566.1
- Xiao, Q., Meiliyang, W., & Zeng, T. (2018). Social support networks in Chinese older adults: health outcomes and health-related behaviors: A path analysis. *Aging & Mental Health*, 23(10), 1382-1390.

  https://doi.org/10.1080/13607863.2018.1488941
- Ziliak, J.P, & Gundersen, C. (2019). The state of senior hunger in America 2017: An annual report. *Feeding America*.

  https://www.feedingamerica.org/sites/default/files/2019-05/state-of-senior-hunger-in-2017\_executive-summary.pdf
- Ziliak, J.P, & Gundersen, C. (2022). The state of senior hunger in America 2020: An annual report. *Feeding America*.
  https://www.feedingamerica.org/sites/default/files/2019-06/The%20State%20of%20Senior%20Hunger%20in%202017\_F2.

#### Appendix A: Interview Guide

#### Introduction

- As an older adult, describe your first reaction to discovering that you could not provide regular meals for yourself.
- 2. Tell me about your current support system. Have you experienced any decline in this support?
- 3. Describe your memorable moment with any member of this support system.
- 4. What are your experiences with loneliness? What did this experience mean to you?
- 5. What does healthy aging mean to you? Give me a specific example of signs of healthy aging.
- 6. Tell me a story about the first time you experienced hunger. What did it mean to you?
- 7. Describe how this situation impacted your ability to access daily food supplies that were safe and nutritionally adequate.
- 8. Describe a period in your life when you did not have difficulty accessing daily food supplies.
- 9. What were your thoughts when you realized you did not regularly have enough food supplies for daily meals? What did this experience mean to you?
- 10. Describe your family members' role in your ability to access food supplies. Give a specific example of these roles. One specific example could be preparing daily meals to ensure that you are maintaining your daily diet.

- 11. What do you think it means to be food insecure? Do you consider yourself food insecure?
- 12. Describe an experience that impacted your knowledge of food insecurity. What did it mean to you?
- 13. What are your thoughts about food insecurity? Could you explain in detail?
- 14. What is the most difficult part of being food insecure? Tell me about the role it plays in your relationships.
- 15. Describe any physical or economic constraints you have experienced.
- 16. Tell me in detail about the impact that these constraints had on your ability to maintain access to daily food supplies.
- 17. What resources have you utilized in the community? Give me a specific example of these resources.
- 18. Tell me about your experiences accessing these resources. What did this experience mean to you?
- 19. How did your experiences impact the availability and access to safe and nutritionally adequate food supplies?
- 20. What role can the community play in increasing access to food supplies? Tell me more about this role.
- 21. As we conclude this interview, is there anything else that you would like to tell me about your experiences with food insecurity? The community?

To ensure transparency and fairness, I will contact you through email and telephone to verify the accuracy of your answers to my questions and to inform you about the study's results.

Hi (Participant),

Project Title: Food Insecurity and The Experiences of Adults Aged 65 years and older

My name is Yvonne Mannings, and I am a graduate student pursuing a Ph.D. in Gerontology. I am researching the role of food insecurity in your social support systems and your experiences with food insecurity. I want to extend an invitation to you to participate in this research.

If you decide to participate, you will be required to take part in one interview session and a follow-up session. These interview sessions will be arranged at your convenience and the choice of Zoom, face-to-face, or email method. Each interview will last about 30 minutes and focus on your daily life and relationships with family, friends, and community. The focus will also be on your food experiences, perceptions of food shortage and maintenance, and other topics. Any additional interviews will be performed to conduct follow-up questions and verify the answers provided to the researchers.

I will collect basic personal information to be kept confidential and protected. You will be assigned a code name throughout the study, and any identifiable data will be coded. Your honest opinions are important, so there are no right or wrong answers. I will contact you later for follow-up questions and any clarifications or corrections to the data.

Your participation in this research is strictly voluntary, and you can withdraw at any time or refuse to answer any questions that you deem too personal.

The participant informed consent form has been attached for your information. If you have further questions about the research, please call me at ...

Respectfully,

YMannings

### Appendix C: Recruitment Flyer



## **Volunteers Needed for a Research Study on Food Insecurity**

Are you struggling to maintain regular meals and food supplies? Are you socially active?

# Study for Adults with Food Insecurity

This study is looking for adults aged 65 years and older who struggle with food shortage and irregular meals to explore the role that food insecurity plays in their social relationships.

Participants will be asked to participate in:

One (1) interview session – location optional (Zoom, face-to-face, or email)

One (1) follow-up Zoom interview session

Participants will receive:

\$10.00 gift card

### Are you eligible?

65 years and older Recipients of home delivery and congregate meals Residents of Broward County

To confidentially volunteer, call Yvonne Mannings @