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A Qualitative Analysis of Lived Experiences of Community Garden Participants in Local Food Deserts

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Abstract

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MPhil, Walden University, 2020

MBA, Liberty University, 2010

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Proposal Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Community gardens were designed to bring communities together while providing an area of comfort and solace, social interactions, and a physical place for those living in apartments or areas in which they are not able to garden. Often, community gardens are started by nonprofit organizations looking to solve problems that plague urban areas. An abundance of literature described and analyzed the role of community gardens in addressing food insecurities, but little has been done in understanding the experiences of participants in the garden. The purpose of this phenomenological study was to gather and identify the perceptions and thoughts of community garden participants in food deserts, and to recommend additional resources that would be beneficial for these areas. By using a qualitative phenomenological methodological approach, the research question for this study addressed discovering the lived experiences of those participating and volunteering in the community gardens and their impacts in areas such as food deserts. This was completed following the theory of reasoned action, which examined a person's behaviors and intentions to behave a certain way. Participants were interviewed in-depth regarding their experiences working and participating in the gardens. Findings indicated participation provided mental and social health benefits during the COVID-19 pandemic and a sense of "community." Results gained from the interviews provide suggestions to community leaders and activists who play a key role in the community for positive change as to how to raise awareness of food insecurity and food deserts to outlining areas.

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Dedication

I would like to dedicate this transcript to my husband, Jason M. Brock, and our son, Walter. Without Jason sacrificing his time and money and being my shoulder to cry on through these long months and years, this degree would not be possible. He continued to push me through times when I wanted to give up and kept reiterating the fact that this degree will not only make our lives better, but our son and daughter's as well. Jason does not know the magnitude of knowledge that he sheds on me each day, nor does he understand the amount of strength he gives me. He is my rock that holds me together and the one that keeps me grounded. I am forever grateful for his full support in chasing my dreams, and finally having them become a reality. Without him, this would not be possible.

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I would like to thank my advisor, Dr. La Toya A. Johnson, who was always available to take my calls, hear me ramble, and provide me with the needed support to get me through this degree. She always made me feel excited for my work, and she effortlessly kept me grounded when I seemed like I was losing traction. Her words of encouragement sparked a flame of desire and proved to make the writing process less painful. I do not know how you did it, but you made writing seem fun and this degree attainable.

Dr. Singh and Dr. Forsythe – Both of you came into my study after it was already in the process, but have been nothing but encouraging, completely supportive, and amazing to work with. The passion both of you exhume is above what I have imagined. You have been quick to respond, add support, and answer questions. It has been a pleasure working with both of you.

Finally, Jason. Not only did I dedicate this to you, but I want to continue to acknowledge you for all the sacrifices you have made. You have been nothing but supportive, sometimes annoyed, but supportive. You were always there, wherever, and whenever that was. You came into this journey after it had started, and dove in headfirst. You were there each time I cried, screamed, and swore that I would never, ever write again. And I do not think there is enough credit available to give you.

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Chapter 1: Introduction to the Study

In the United States in 2013, 17.5 million households experienced a noticeable level of food insecurity throughout the year. As the statistics are reported yearly, there has not been a decrease in the numbers over the past 10 years. The numbers continue to climb as the economy continues to fluctuate. Feeding America (2018) noted that in 2016 in the United States, there were approximately 41.2 million individuals who were food insecure, which is an estimated 12.9% of the population of the United States. With 7.442 billion people in the world in 2016, 815 million people experience food insecurity, a number that is up from 777 million people in 2015 (FAO, IFAD, UNICEF, WFP & WHO, 2017). As the food insecurity numbers continue to rise, it is apparent that it is not only a problem or epidemic of the United States, but one that is affecting individuals and families all over the world.

A recent study (2014) by Smyth et al. highlighted that as the global population continues to expand, maintaining and ensuring enough food and affordable prices available to the population will continue to grow with the population. Gardens or garden-like settings are likely to improve the well-being of many individuals if they are implemented into areas designated as food deserts or in areas where need is expressed. Community gardens will play a key role in helping to alleviate localized poverty, while providing supplemental food sources for those in need.

According to Porter and McIlvaine-Newsad (2013), community gardens have grown in popularity and are no longer perceived to be just a vegetable garden. They have become important aspects or prominent features in neighborhoods across the country.

People can gather, socialize, and influence others to join the phenomenon. Community gardening and producing food within a neighborhood setting can defeat the unequal food distribution and ensure equal, nutritious food for all involved.

Community gardens are beneficial in many aspects and can be a positive avenue for social change. They provide educational opportunities for those individuals participating; they could help employ individuals in the right setting, or atmosphere; and they provide individuals the opportunities to gain experience about urban agriculture, while promoting health, well-being, and positive social change. Gardens provide individuals a place where they can practice teamwork on a regular basis. Along with teamwork, gardens empower the individuals with the strength to advocate for themselves and their communities. Rani et al. (2019) identified that community gardening promotes the consumption of fresh fruits and vegetable by the garden participants. The gardens continued to promote positive eating habits for the participants. The authors later mentioned that the gardens were engaging the local participants, which continued to lower and reduce local crime rates in participating communities.

Community gardens are positive enhancements to communities and food deserts, and this phenomenological study aims to discover if the perceptions of the participants' and volunteers of these gardens correlate to the positive positions of the gardens. Lee and Matarrita-Cascante (2019) stated that research has continued to recognize the multiple benefits of community gardening, including develop social cohesion, access to fresh fruits and vegetables, recreation, and educational opportunities, and increasing the health among the community. The authors further noted that those participating in community

gardens represent a diverse background of individuals. The gardeners come from diverse backgrounds that include socioeconomics, individual needs and motives, past experiences in garden settings, distance the individuals traveled to get to the garden locations, etc. This qualitative study is important to the communities because if the participants' and volunteers' perceptions of their participation align with the overall goal of the gardens, then more studies can be conducted on implementing community gardens in low-income and food desert areas.

Background of the Study

Ever since the Great Depression, victory gardens or community gardens have been planted with increased frequency. Those who planted these gardens were novices and did not have proper instruction, let alone the time and money, needed to fruitfully harvest a garden. It is hard to give an approximate number of gardens around the United States, as they are continuously popping up and becoming a used plot of land. They range in size anywhere from a smaller, inner-city version of 4.9ft by 4.9ft, to one of the largest reported in Denton, TX, which measures in at 14.5 acres of land. According to the American Community Gardening Association (ACGA; 2018), there are an estimated 18,000 community gardens throughout Canada and the United States. In San Francisco, the community gardens and available areas are available through "self-imposed" garden membership fees through the city's parks and recreation department (American Community Gardening Association, 2018). In Denver, there are reported over 100 community gardens in the metro area, with 26% on school grounds (American Community Gardening Association, 2018).

Numerous stances are taken regarding community-based garden initiatives. While many believe that it could help social and emotional well-being of individuals, as well as provide some physical activity and can help offset obesity, others believe that they are good for the communities as well. Guitart et al. (2012) noted that there are benefits to community gardens, including promoting health and well-being, building community structure throughout the area, and an increase in educating capabilities. The gap in knowledge is an insufficient amount of information on the lived experiences of the individuals who are participants in these gardens in the United States and in food deserts. Information such as studies done by McVey et al. (2018), Ramos et al. (2019), Kingsley et al. (2019), Anderson et al. (2019), and Mmako et al. (2018) all address social inclusion, group and individual perspectives, and benefits of community gardens, but of those outside of the United States. This study attempts to document these experiences using an in-depth interview process to determine the major themes and premises for individuals and volunteers who participate in gardens.

During the COVID-19 pandemic of 2020, it became apparent that individuals were struggling when they thought they were not. Individuals lost their jobs, their mental health dissipated, and their need for help was front and center. Individuals needed help with rent and utilities, many claimed unemployment benefits, and many relied on local food banks for additional resources; resources that at times were extremely limited and strained. Mercado (2021) noted that while the pandemic has been surging and growing in intensity in various places, community gardens have continued to focus on strengthening the growth of community gardens by building a more reliable and resilient system for

future uses. She further noted that during the pandemic, community gardens have continued to be a refuge for individuals seeking social support, mental health relief, as well as emotional well-being, in addition to providing access for to individuals facing food insecurity. Mercado also noted that a recent study in Denver, CO, has shown that participating in gardens provides individuals with an increased sense of control over the types and quantities of the fruits and vegetables that they grow.

The pandemic hit hard for immigrants and refugees from Somalia, the Congo, Nepal, and Bhutan residing in Oregon. Danovich (2020) stated that while Oregon's governor issued a stay-at-home order, community gardens where immigrants and refugees were plot holders were deemed necessary because it was where many went and relied on fresh food and vegetables.

Much of the research leads readers and scholars to understand how community gardens play a significant role in the social and economic situations of the participants, but not a lot of information has been gathered on exactly why these people are participating in gardens. This study aims at discovering why individuals participate in the garden selected. In the end, social change will be identified and brought to light regarding the need for additional community run gardens that benefit more than just the current participants.

Problem Statement

While we know much about the benefits of community gardens, we do not know much about the motivations and experiences of the participants. There is an epidemic that is plaguing children and families in the United States and that epidemic is childhood

poverty. An integral aspect of poverty is food insecurity and hunger. According to Semega et al. and the United States Census Bureau (2019), the poverty rate was down 1.5% from 2018 to 2017, and that since 2014, the poverty rate has fallen 3%. This percentage is equal to 38.1 million people in the United States. (At the time of this writing, the 2019 U.S. Census numbers have not been released by the U.S. Census Bureau). Because the numbers for 2020 will not be released until sometime in 2021, it is unknown how the pandemic will affect the poverty numbers.

Purpose of the Study

The purpose of this qualitative study using a phenomenological approach is to examine and describe the experiences of individuals who reside in classified food deserts and their experiences with participating in community gardens. The intent of this study is to explore and describe the lived experiences and motivations of the community garden participants. What is their reason to engage in a community garden? What are the benefits that they have experienced by participating in them? Have they benefited from them socially or just by participating in the garden, or both? Previous studies highlighted community gardening benefits like mental and physical health, increase in fruits and vegetables, increase in neighborhood/community socialization, etc., but what they did not address was how the participants felt about engaging in these activities or what were their motives were behind their engagement.

To prepare for this study, one garden was chosen to represent an area in which the USDA deemed to have a food insecurity rate of over 10% of the county population. The

goal of the research was to understand how the lived experiences of the garden participants affect their food insecurity levels and to determine on a larger scale additional resources that could be available for the participants. Despite a significant amount of research on health (mental and physical), obesity levels, and social and emotional health related to gardening and community gardens, there is a prominent lack of information related to lived experiences in relation to food deserts and its' relationship to food insecurity.

A vast majority of the published literature surrounding community gardens, or their initiatives focuses on the physical and mental statuses of those participating in the gardens. The research does not address the emotional well-being of the participants. The research lacks additional resources that could be available for those participating in the gardens, and it lacks the recommendations for additional gardens and spaces to expand. In a report published by the United Nations in 2018, they predicted that by 2050, 68% of the world's population would reside in cities, where they would have guaranteed access to fresh fruits and vegetables and adequate shopping experiences.

Food deserts are areas in which an individual lives more than one mile from a grocery store. Approximately 23.5 million people live in food deserts, with close to half of them considered to be low-income or living below the poverty level. Of that number, about 2.3 million people live in rural or lower income areas but live more than 10 miles from the nearest supermarket. These individuals do not make enough money monthly to budget for the rising cost of fruits and vegetables, and recently because of COVID-19, meat commodities.

Howerton and Trauger (2017) later stated that food deserts are both economically and culturally produced, meaning that racial bias is prominent where grocery stores are located, and that the areas where food deserts exist are often produced through uneven development of the surrounding areas. The authors later mentioned in their report that there are some discrepancies in some reports that the USDA sends out, specifically that they report that there are other important food sources in addition to supermarkets, but that they fail to mention them in surveys. They further mention that their study aimed to look at alternative routes to gain access to affordable and nutritious foods in their identified study areas.

Research Questions

The impact of community gardens on communities is often overshadowed by other, larger projects or community outreach organizations. Further, the research shows that not much information is available regarding the lived experiences of participants. The information available revolves around how gardens can drastically change mental or physical attitudes of participants, but to find out how these gardens affect the lives of those in the communities, the following research question was addressed: What are the lived experiences of people involved in community gardens who reside in food desert environments?

Theoretical Foundation

The theory of reasoned action (TRA) is like Newton's Third Law of Motion, but relating to humans, as it describes a persons' behavior and their intention to behave in a certain manner. TRA focuses on the motivation of the individual to perform the task of

complete the objective. For this study, TRA looked at the motivation of the individuals and the reasoning behind their participation in the community gardens. The theory suggested that the stronger the intention to participate in the activity, the higher the effort to perform the activity. Therefore, for this study, the stronger the financial or emotional need, the greater the potential increase in the participation level of the garden. It is essential to discover the correlation of community garden participant perceptions with community gardens to determine additional resources for the participants and food deserts in and around the areas.

In recent years, community gardens have been popping up across the country. Some of the gardens are located on public property, some private, some are even located on school properties, but they all have the same result: provide a social atmosphere for individuals to grow their own fruits and vegetables and to come together as a community for socialization and physical exercise. Two community gardens were selected for this study, both located in local food deserts (for the purpose of this study, the closest supermarket is between one and 10 miles from the subject gardens). The purpose of this study and using the TRA is to identify the lived experiences and impacts of the selected community gardens on those participating and in the food deserts which they are located.

Nature of the Study

For this qualitative study to take shape, a phenomenological approach was applied to the study. The study is comprised of a group of individuals participating in a community garden who reside in a presumed food desert. For this study, a case study method was beneficial to me because of the way in which the data were collected

(interviews). A case study allowed me to distribute a questionnaire to participating individuals and determine whether their perceptions and attitudes towards community gardening have changed their outlook on food deserts and if their participation in the gardens and the possible implementation of other gardens would make a noticeable difference in the area. Phenomenological studies give researchers a better understanding of the participants' reasoning to participate in the gardens. A key feature of the research was the cooperation and collaboration between me and the participants of the study.

A phenomenology method was used to examine the phenomena of exploring lived experiences with gardens and how the participants feel that their actions impact food deserts in their areas. The participants interviewed for this study were participants of the garden, who were willing to record their perceptions of community gardening initiatives in their areas and the foreseeable outlook on food deserts. According to Van Manen (2017), "the term 'lived' experience equates with living-through, pre-reflective, pre-predicative, nonreflective, or a theoretic experience while realizing that we cannot simply access the living meaning of lived experiences through introspective reflection" (p. 812).

Definitions

Food desert – The United States Department of Agriculture (USDA) classifies a food desert as "a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store" (USDA, 2020). These areas do not have easy access to affordable, fresh, or healthy foods.

Food insecurity – Food insecurity is defined as the inability to consistently afford or access healthy food. Food insecurity is influenced by various factors including racial

and ethnic disparities, employment/unemployment, income, and in households where there is a family member who is disabled. Individuals who reside in neighborhoods where there is limited public transportation are also at a risk for higher insecurity rates.

Food security – Food security is the ability for all people to afford and access healthy, culturally appropriate foods. These individuals have adequate access to nutritional, balanced, and sustainable food sources.

Pandemic – A pandemic is a global epidemic that jumps from continent to continent, affecting individuals. The COVID-19 pandemic has infected hundreds of millions of individuals across the globe, that has led to approximately 2.5 million deaths.

Assumptions

One major assumption for this study is that the participants of the garden, when given the research questionnaire, answered the questions truthfully. While there was no monetary or gift incentive for the participants to participate, there was an adherent incentive for the communities if the questionnaires were submitted with non-skewed data. There is the possibility for additional resources to be offered in the area pending the results of the data and information. Another assumption for this study is that all the participants shared and have like experiences, and that is the reason that they are participating in the gardens, meaning they have the same background, same motives for participating, etc. Another assumption is that all the participants were aware that the garden is in a food desert as defined by the USDA.

Another assumption for this study is that there will be additional resources that would be made available to those who are interested who are participating in the gardens.

There are many programs and initiatives in the area that are available to those who are in need, that many do not know about. Programs such as providing "school" meals during the summer, rent and utility assistance, and childcare assistance are some programs that are available to individuals meeting certain criteria.

Scope and Delimitations

A delimitation of this study is the usage of closed-ended questions in the questionnaire handed out to the participants. The questionnaire was purposely constructed to eliminate the chances that the participants would insert any information that would easily identify themselves when submitting to me. In a phenomenological study such as this one, questionnaires are useful tools to collect data because of their ability to provide information on lived experiences through thorough "interviews." Though the questions included in the questionnaire are thorough, they are nonstructured.

The study examined the perceptions and lived experiences of participants in community gardens that are in food deserts. The participants of the gardens were emailed by the garden director, asking for participants to contact me to set up an interview time and place. Once confirmed, they were given prior access to the questionnaire for them to be able to prepare for the interview.

Limitations

One of the limits to this study was the number of participants that would actually volunteer for participation. Originally, the sample size number was set to 15-20 participants. By conducting the research and when the garden was identified, it was decided that that sample size would not be attainable. Instead, the sample size was

lowered to 5-7 participants to ensure that the study would have participants. The identified garden was not large; therefore, the participant size would represent the size of the garden. The identified garden proved to not reach a complete saturation level, which resulted in the need for additional testing and research in the field.

Significance of the Study

Food is a necessity to human survival. The global food-supply chains are buckling under increased pressure due to climate change and physical need, as well as shortages due to the global pandemic. In many countries, food is being wasted because places that would normally buy their products are closed due to the pandemic. The United States and Canada rely heavily on seasonal farmworkers to manage crops. With borders being closed, non-essential workers working from home, and many offices and embassies either closed, or their work suspended, seasonal workers are not able to tend crops, leaving food to go to waste.

Food deserts are prevalent across America. These “deserts” are typically areas in an urban setting, where residents do not have access to a healthy yet affordable diet. According to Block and Subramanian (2015), food deserts are generally in areas that are considered “low-income” and in places where individuals lack adequate access to grocery stores or supermarkets. Individuals in these areas live generally one or more miles from a supermarket, or in the case of urban areas, 10 or more. Sharma et al. (2015) mentions availability “indicates an adequate supply of food, while accessibility refers to a stable and continuous access to the food that is available” (p. 2). With the threat of climate

change and food shortages, the availability of fresh fruits and vegetables dwindles for those residing in food deserts and their access to these items becomes scarcer.

There is a significant gap in the research of the perceptions of community participants who participate in gardens that are in food insecure communities. Current research on community gardens focuses on both the social benefits and positive physical benefits of gardens in communities. Research suggests that there are a variety of benefits of community gardens in "neighborhoods," but research does not mention how the participants feel about the gardens, and whether they are aware that the gardens they are participating in are in food deserts. Research also does not write about what the participant perspectives are of participating in the gardens knowing what they know about the area that the community garden is located.

At the end of 2019, an epidemic of mega proportions broke out in China, COVID-19, which led to quarantines, lockdowns, and travel restrictions. In 2020, those fears and actions spilled over to many countries in Europe, and then spread to the United States. In 2020, the world was seeing its first worldwide pandemic since 2009, when the world was struck with the H1N1 virus. According to the Centers for Disease Control (CDC; 2020), there have been three other pandemics: 1968 – H3N2 virus; 1957-1958 – H2N2 virus; and 1918 – H1N1 virus. These pandemics all comprised of the flu virus, with various mutations and genes, and even transmittals directly from birds to humans.

The rapid spread of COVID-19 across the globe created detrimental issues. There were shortages of toilet paper, cleaning supplies, hospital supplies, and personal protective equipment, and there has been a shortage of commodities such as beef,

chicken, and pork. In April 2020, according to Wiener-Bronner (2020), the United States had one of the largest pork processing facilities shut down due to their employees falling ill with COVID-19. Because of this, the countries' meat supply was put in jeopardy. In September 2020, the World Bank published an article mentioning that "as the coronavirus crisis unfolds, disruptions in domestic food supply chains, other shocks affecting food production, and loss of incomes and remittances are creating food security risks in many counties. Despite stable global food prices, countries are experiencing varying levels of food price inflation due to measures taken to combat the spread of COVID-19" (para. 2).

In a 2020 article by Francesca Giuliani-Hoffman, she estimated that by the end of 2020, 12,000 people a day could die due to hunger linked to COVID-19. Giuliani-Hoffman concluded that many faced difficulties due to supply chain disruptions and trouble receiving products from the producers, in addition to issues on the personal level, such as unemployment, reduction in pay, and issues caused by a lack of social support from the community. COVID-19 also exposed many issues in the supply chain. As the unemployment numbers continue to climb from those displaced by the pandemic, food banks and food pantries are being stretched thin as more and more people turn to them for help. Food banks and pantries are playing a more prominent role in society due to the pandemic, and even they are running out of options and alternatives.

Gibbens (2020) explained that one of the ways in which to continue to keep and make the supply chain valuable during the pandemic is to enhance and make the economy stronger. They believed that by opening food businesses and/or restaurants was

one of the best ways to keep things moving. Gibbens also noted that there were significant shortages in beef, milk, eggs, potatoes, and leafy greens and other produce either due to food waste because produce and other greens are purchased and supplied to restaurants, schools, and hotels, all of which who spent the majority of 2020 closed due to the pandemic. Some produce could not be picked or harvested due to quarantines and travel restrictions. And the same goes for eggs and potatoes, singling out the restaurant and hotel industries. Millions of gallons of milk had to be dumped by farmers every day because they had a surplus of milk that they were not able to sell to these entities, and because dairy has strict guidelines and regulations about how it must be packaged and pasteurized, the dairy farmers had no other options but to dump their milk.

A report published by Oxfam (2020) noted that in initial studies, it was likely that the number of food insecure individuals would rise to approximately 270 million, which is an increase of 82% compared with 2019. Oxfam recognized the top 10 most extreme hunger countries around the world to be: South Sudan, Syria, Haiti, Yemen, Democratic Republic of Congo, Venezuela, Ethiopia, Sudan, Afghanistan, and the West African Sahel. These countries on a typical day without COVID-19 crippling their food supply already experience increased levels of food insecurity and food shortages, hunger, and famine. By the end of 2020, Feeding America estimates that there could be approximately 54 million Americans struggling to put food on their tables, or one in six Americans. As of October 25, 2020, the state of Florida has paid unemployment benefits to 2,064,898 residents (DEO Press Release, 2020).

Summary and Transition

Chapter 1 focused on the main aspects of what this project hopes to reveal: that community gardens are not only beneficial for food consumption in a neighborhood type setting, but that they are beneficial in area food deserts and help bridge the gap of food insecurity. Chapter 1 provided information to narrow down the research question, which will be answered in the following chapters, and allows for growth and explanation of more concepts and boundaries for program implementations. Chapter 2 will look at evolving information and then identify the "gap" and further define the problem of food deserts, food insecurity, community gardens, and the benefits of such, as well as look at the perceptions or lack thereof of previous literature and how perceptions change the copes of community garden programs.

Chapter 2: Literature Review

Chapter 2 will look at the evolving literature surrounding community gardening and gardens, and it will identify gardens which have failed or succeeded in areas deemed "food deserts," and the perceptions of the participants of the identified gardens. Chapter 2 will also investigate how community gardening, or just gardening, can benefit the participants' health and social engagement, while some literature mentions that gardening can improve social and mental health, and help to prevent childhood obesity among participants. This chapter also describes the fundamentals of the TRA that was developed by Fishbein and Ajzen in the 1970s. The TRA focuses on the roles of intentional behaviors of the individuals. The literature will look at the positive aspects' community gardens have on lives, and it will show correlations between improving cognitive health and well-being, as well as physical activities that it provides.

Literature Search Strategy

The research for this study was gathered in a few different ways. First, I used a Google Scholar search to narrow down a specific time frame to no more than 10 previous years, as well as a specific designation for finding the sources at Walden University's library. The use of a timeframe of 10 years is because community gardening has been around since World War I, and the information for these various topics comes in waves of when in time these gardens were on the rise of popularity. Information seems to be more prevalent when the economy is at a standstill or not doing too well. And by using a timeframe of 10 previous years, I could see the trends in community gardening and changes in areas and food desert designations due to census information.

Keyword searches included but were not limited to the following: *community gardens*; *community gardening*; *food security/insecurity*; *food deserts*; *community farming*; *childhood obesity*; *childhood malnutrition*; *WIC Program*; *theory of reasoned action*; *food prices*; *food volatility*; *garden-based learning*; *victory garden*; *sustainability*; *benefits of gardening*; *low-income qualifications*; *known barriers*; *COVID-19*; and *supply-chain disruptions*. These keyword searches were also used through Walden University's library using EBSCOHOST and ProQuest. Articles were obtained from scholarly, peer-reviewed journals, as well as governmental websites (when appropriate with varying topics).

Theoretical Foundation

The TRA was first developed alongside the implementation theory in the 1970s by Martin Fishbein, decades later to be expanded by Fishbein and Icek Azjen. The TRA does not focus on the past behaviors of the individuals, but rather the role of the individuals' intentions. According to Ramayah et al. (2003), there are two major "factors" that determine behavioral intentions: personal and social influence. TRA has been one of the most influential theories on human social behavior. The TRA has been helpful to researchers in their understanding of intentional behaviors.

This theory has been used in numerous studies to analyze the different human behaviors that can predict humans' intentional behaviors. Brodowsky et al. (2017) state TRA "represents individuals' assessment of whether or not he or she *should* engage in that action" (256). I strove to understand what the gardens' participants' intentions were

in participating in the gardens and what their future intentions are with the knowledge that they have gained.

Liu et al. (2017) conducted a study using the TRA model alongside another model, cognitive-affect behavior, to find out what the green consumption was among two groups of individuals in their study. The authors focused on the participants' "attitude-intention path," meaning, the authors followed the attitudes of the participants purchasing green products, and their future intentions to purchase green products. They tested their models using "self-reported surveys" which they felt were subject to slight bias in the reporting. They realized that consumers' intentions were typically inspired by their attitudes. Liu et al. noted that positive intentions predicted an average of 75% of the variances that they were searching for.

The results of their study indicated that those who were more concerned about the environment and maintaining a "green" life were the African American and Hispanic participants of their study. They believed that the groups' upbringing and previous experiences were part of the reason that they felt so strongly to continue with preserving the environment and maintaining a green life.

Literature Review

Community gardens have had positive effects on the lives of those involved suffering from household food insecurities. The following literature review provides insight into what food insecure households experience, in addition to promoting positive social and physical education in school districts. Litt et al. (2018) noted that green spaces,

or community gardens, can be identified as a space having one or more families participate side-by-side in a gardening atmosphere (p. 73).

Marshall et al. (2017, as stated in Borrelli, 2008), also previously indicated that the notion of community gardening might be beneficial to those in and around the community in which they are located because they pose as a symbol of the coming together of a diverse community (p. 130). Bonow and Normack (2017) observed that citizens that participated in community gardening efforts were more likely to feel empowered by their choice of actions, as well as the fulfillment for using/occupying otherwise rundown public spaces. Government municipalities encourage community participation in numerous activities and community gardens prove to engage individuals with other like-minded community members. Support for community gardens through city municipalities and school districts are on a trial-and-error basis. Not all communities are able to garner enough support from citizens, community, or school district.

Community Gardens

A report published by the United Nations in 2018 predicted that by 2050, 68% of the world's population would reside in cities, which creates an increased demand on public services and urban planning. This means that more houses will need to be constructed and less areas would be left for cultivating gardens. Community gardens tend to receive a lot of attention for the benefits that they give their participants. They provide social and physical benefits both to neighborhoods and to their participants. Gardening brings together the community through cultivation, and Drake and Lawson (2013) noted that gardening provides diverse activities, crops, and emotions for those participating in

them, and that they are not necessarily just an instrument for growing and cultivating crops.

Church et al. (2015) stated that both writers and activists mention that those who grow their own food can help promote a more ecologically and sustainable world. Recent studies noted that individuals residing in rural areas were more likely to grow their own food than those in an urban area. Observations have been made regarding whether this has to do with their income ratio, or size and location of their properties. Wakefield et al. (2007) studied the effects of growing food in gardens and comparing the pricing to that of which is store bought, and noted that in some cases, a significant difference in household food costs was proven.

Further, Church et al. looked at whether issues arose that would significantly impale the participants from growing their own food, and if those issues influenced others and their actions. As defined by Krasny and Tidball (2009), "community gardens are heterogeneous environments that integrate environmental restoration, community activism, social interactions, cultural expression, and food security" (p. 1). The authors further note that community gardens help individuals become part of a community and integrate their general knowledge of food production/growth with community involvement.

Most studies relating to community gardens fail to identify the gardeners' diversity and related characteristics. Lee and Matarrita-Cascante (2019) decided to fill this gap in the research by seeking out more diverse areas and gardens to collect their data around the Austin, Texas area. They chose three gardens that operate year-round to

seek data on past gardening experiences and how they influence current participation. They found that most gardeners feel the need to participate in this activity because they are driven to grow/produce their own food. Most of this motivation comes from the want/need to produce more organically and sustainable fruits and vegetables. They found that the shift in community garden participation has shifted to multidimensional reasons, meaning that there is more than one motivating factor for their participation. These factors include feelings, functional and physical goals, and needs, but also for more personal reasons.

Of the 454 participants that were invited to complete the questionnaires handed out, 191 responded from the three plots. They varied in age, education level, race, and gender. Their results yielded that a significant factor for participation was age, and that there were more older gardeners (68% of the respondents were between 40 and 69). Their participation was centered around growing food, enjoying the outdoors, and enhancing their health. The study also noted that the participants' previous gardening experiences guided their intentions to continue to participate.

Food Insecurity

In the United States, food insecurity is experienced by over 20% of the current population of families with children. Studies (Bice et al., 2018; Kaur et al., 2015; Nepper & Chai, 2016; Wong, 2017) have shown that families with children who experience food insecurities have a higher rate of obese children. This led Kaur et al. (2015) to believe and note that these were due to nonuniform food consumption patterns of the families. Bice et al. (2018) later linked these patterns to continued technology advancement, and

use of technology (i.e., iPads, tablets, etc.) which would cause sedentary behaviors among children and adolescents. Some parents use these as “babysitting” techniques which prevents children from participating in outdoor activities and leads them to a lessened number of physical activities.

Food security is essentially a multi-dimensional concept. Given the tumultuous state of the economy, the state of food insecurity is about to rise. It represents the availability of food supply, access to food, and how the food is used by the consumer. Food deserts are one of the main causes of food insecurities. Food deserts can be defined by the United States Department of Agriculture as “areas in which at least 500 people and/or at least 33% of the population, reside more than one mile from a grocery store” (Herrmann, 2015, p. 649). Many food deserts occur in areas in which individuals do not have vehicles or means of transportation that would allow them to travel outside of the mile boundary to reach a grocery store. These “stores” are not considered to be corner stores or convenience stores that do not provide fresh fruits and vegetables and sustainable food sources.

The definition of food security has seen many changes and interpretations over the years since the original definition came to fruition in 1974. In 1974 at the World Food Conference, food security was defined as the “availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices” (Ayala & Meier, 2017, p. 2). Individuals “qualify as food insecure based on risk factors such as missing meals, relying on food banks or food stamps, borrowing money for food, or neglecting bills and rent in order to

buy groceries" (Simmonds, 2017, para. 4). The United States Department of Agriculture (2017) in the United States alone during 2016, 87.7%, or 110.8 million households, felt some sort of food insecurity.

Many individuals fall into the category of food secure, but for those who fall into the other categories are generally concerned with how they will be able to afford food to put on their tables, and/or, do not make the necessary sacrifices to buy the desired foods. Savoie-Roskos et al. (2016) noted that even with the long-term benefits of consuming fresh fruits and vegetables studied, less than half of the children in the United States are consuming the recommended values as provided by the American Heart Association. There have been many health programs, along with numerous policies, to implement and increase in fruit and vegetable intake among children. These programs were initiated and implemented to improve and install healthy eating habits among children, which would reduce their future risk of developing an adult-onset chronic disease.

Aftandilian and Dart (n.d., Coleman-Jensen et al., 2011, p. 2) mentioned "according to the USDA, food security means 'access by all people at all times to enough food for an active, healthy life.'" Not all areas of the country have equal access to grocery stores or equal access to fresh fruits and vegetables. Individuals living in extremely rural areas of the United States, such as the mountains of Kentucky or Virginia, have limited access to grocery stores. Also, typically, individuals residing in these areas live well below the poverty line and depend on public or government assistance. An extreme of this situation includes individuals who do not have reliable transportation that could get them round-trips to grocery stores in and around their areas.

Poverty Line

The poverty line increases minimally with the addition of individuals into a household. Each year, the poverty guidelines are reviewed and populated using information from the Census Bureau. In 2017, the Health and Human Services Department (HHSD) stated that numerous Federal programs use the poverty guidelines to determine eligibility for services for families and individuals. This years' poverty guidelines (as of January 26, 2017) are as follows: for a family of one, the threshold is $12,060; for a family of two, the threshold is $16,240, etc., adding $4,180 for each additional person in the household. For a family of eight, their annual threshold would be $41,320. If your family lives under the posted federal poverty guidelines, then you are more likely to qualify for federal programs, such as Medicaid or CHIP (Children's Health Insurance Program) and are eligible to receive federal money for food stamps.

Of the above listed population, many of the individuals work at low-wage jobs, some making the national minimum wage, and some making less than the average working tipped jobs. Unfortunately, this wage is not substantial enough to feed, clothe, and provide shelter for many Americans and they are forced to rely on government assistance programs. In 2015, the minimum wage in the state of Florida was $8.10 an hour. If an individual were to work 40 hours per week, 52 weeks of the year, before taxes they would make $16,848. This number is not substantial enough to provide the bare necessities for one individual in a household and does not take into consideration a rent/mortgage payment, grocery bills, medical, and any other monthly needs an individual must maintain.

Race and gender will always play a part in determining the course of the poverty discussions. Minorities, including Latinos, American Indians, and African Americans make up 27% of the disproportionately poor individuals in the United States. These individuals statistically work low paying jobs and make up much of individuals who rely on public assistance. In a recent study conducted by the Second Harvest Food Bank in Silicon Valley, California (2017), it was estimated at 26.8% of individuals, or about one in four, are at risk for hunger. Silicon Valley is one of the most prevalent and wealthy in the world, yet to the average person looking in, one would not see problems.

According to a study by Waliczek et al. (1996) city size, race, and gender can affect the perceptions of individuals participating in the gardens. In their study, they found that community gardens were more important to those who were African American or Hispanic. The survey they conducted indicated that the role of community gardens in neighborhoods and in areas where they are needed, tended to increase the quality-of-life benefits to those listed above. Community garden practices are increasingly crucial as communities continue to grow and invade pivotal land resources.

Childhood Obesity

A 2017 study submitted to the Centers for Disease Control and Prevention (CDC) and National Center for Health Statistics by Hales et al., found "from 1999-2000 through 2015-2016, a significantly increasing trend in obesity was observed in both adults and youth. The observed change in prevalence between 2013-2014 and 2015-2016, however, was not significant among both adults and youth" (p. 5). Their study concluded that for the years 2015-2016, the young adult population (ages 20-39) had a prevalence of 35.7%;

adults (ages 40-59) was 42.8%; and that adults aged sixty (60) and over was 41%. Hales, et al. (2017) also noted in their study that the "prevalence of obesity was higher among youth aged 6-11 (18.4%) and adolescents aged 12-19 (20.6%) compared with children aged 2-5 (13.9%)" (p. 1).

According to Wilfley et al. (2017) mentioned that in the United States, the level of childhood obesity has reached epidemic levels, with nearly one in three children being identified as overweight. Many individuals do not know that the situation that they are in is dire. The likelihood of exposing their children and families to food insecurities is on the rise. Nackers and Appelhans (2013) stated that though food insecurity levels are reported inconsistently, evidence has been found to suggest that those who are living in food insecure households exhibits signs of poor diet, decreased cognitive function and development, exhibit emotional and behavioral problems, and will later in life accumulate more body fat. Many individuals are trying to make ends meet and are filling voids spaces in diets with filler foods that they believe are beneficial for their families, when in fact, are causing more harm to them.

Lautenschlager and Smith (2007) conducted a study on perceived behavioral control (PBC), a construct of TRA. The purpose of their study was to determine whether a garden-like setting would change the eating habits of the participating children. They sampled low income, multi-ethnic children around the Minneapolis/St. Paul, MN area over a 10-week period. Their study consisted of 42 boys and 54 girls, ranging from 8-15 years old. The researchers developed a survey with themes that they previously identified

in a focus group: gardening, nutrition knowledge, cooking, social influences, and dietary habits.

The authors' study consisted of 17 questions and used PBC to determine the measurement of external factors that might influence or interfere with the participants' behaviors. The researchers used a stepwise regression analysis, including all possible independent variables in the model, then eliminating those that do not contribute statistically to the results. When analyzing the boy and girl results, the researchers found no correlation between intent and behavior relating to their experiences/perceptions. The opposite was found with the girl participants. Their findings were consistent with the predictive patterns when Theory of Planned Behavior (TPB) is used to investigate the eating behaviors/habits in younger children. They concluded their study noting that those children that participated in gardening programs indicated modest changes and increases to their eating habits by consuming more fruits and vegetables.

Healthy food choices are expensive to individuals who rely on a fixed income and can prove challenging to find on limited budgets. The innate risk for childhood obesity problems lies in one of two places: pre-disposure, such as genetics, and food insecurity. According to Ayala and Meier (2017) "food security is not limited to ensuring the sufficient production of food; it encompasses the need to guaranteed access and availability of nutritious food" (p. 2). Nackers and Appelhans (2013) further stated that those who experience food insecurity typically consumer poorer-quality foods, as those are the ones that they can afford and will avoid healthier food choices because it would stretch their money too far or is not in the budget.

There is still much information that is unknown as to why childhood obesity numbers have risen over the year. Many speculate that it is caused by the availability of unhealthy foods in residential neighborhoods, where low-income and racial/ethnic minority groups live. Some medical information and research indicate that childhood obesity is genetic and can be controlled and/or prevented. As childhood obesity has continued to rise over the past few years, not much has been discussed by organizations to address the necessary steps needed to work on alleviating the problem at hand.

In the United States, United Kingdom, as well as many European countries, the consumption of fruits and vegetables by children is exceptionally low, in some places under the recommended five daily servings. Christian et al. (2014) noted in their research that "current academic literature shows promising results suggesting school gardening programmes provide an interactive environment that has the potential to change children's self-efficacy and willingness to try different fruits and vegetables" (p. 2).

Over the past few decades, the percentage of childhood obesity has risen in children ages 6 to 11. Kinnafick and Thogersen-Ntoumani (2014) said that individuals should be logging 150 minutes of moderate-intensity physical activity per week to align themselves with the health standards outlined. The average class recess lasts approximately 30 minutes, one time per day. Though, there have been recent measures to eliminate recess all together from schools. Youth who are physically active, have a tendency not to develop chronic illnesses, such as diabetes, high cholesterol, and high blood pressure. They are also less likely to have weight issues that would lead to adult-onset obesity.

Recently, a joint statement was made by the American Academy of Pediatrics and The Obesity Society that addressed the stigma of weight and childhood obesity. According to Kyle et al. (2017) “stigma experienced by youth (both children and adolescents) with obesity and their parents is among the most important factors impeding progress in efforts to reduce the health burden of obesity” (p. 1). They further went on to mention that obesity will lead to worse health outcomes as they get older.

Global Food Prices

Many large grocery stores are not located in rural areas of the country, which limit the accessibility of healthy foods for these groups of individuals. Areas which are devoid of large grocery stores, where individuals rely on local, small convenience stores and fast-food chains, are called food deserts. These areas are becoming more prevalent in areas where unemployment numbers have risen over the years. Companies stage their businesses, and then pull their organizations out when times become dire, and they are not profiting much. But how can companies’ profit, when individuals are unable to afford their products because prices are almost tenfold what normal companies charge?

The government is responsible for setting policies for market and trade, with the hopes of protecting the domestic markets and calming price fluctuations for basic commodities. When global food prices rise, there is an inherent risk for depletion of meals which leads to worsened distribution of food calories. Many individuals will seek out food to fill the void, often leading to sugary foods that increase calorie count and lessened health benefits. In 2011, the G20 summit agenda focused widely on food security.

The new millennium has seen its share of food anomalies. The millennium has brought on two food crises. The first food "crisis" occurred in 2008, with food prices globally increasing by 3% between January 2007 and December 2008. But between January 2007 and March 2008, the prices of food rose astronomically by 51% in such a short period of time. These were due to food riots that were taking place across Europe, Africa, Asia, and the Americas. The food famine in the January of 2010 in the Horn of Africa caused the second of the millenniums' food crises, causing food prices to soar another forty percent. According to Bellemare (2014) "to further complicate the relationship between food prices and social unrest, there is some confusion among policy makers and commentators about what is the precise relationship through with food prices may cause social unrest" (p. 2).

Bellemare's article (2014) looked to find "whether the relationship between food price levels and social unrest is casual" and "compares the differential impacts food price levels and food price volatility have on social unrest to contribute to the debate between those who argue that rising food prices cause social unrest and those who argue that food price volatility causes social unrest" (pgs. 2-3). The food riots occurred throughout 25 different countries around the world. Riots occurred in some of the poorest countries that rely on agricultural as their main commodity. The riots were attributed to droughts of grain-producing crops as well as soring oil prices. The increased oil prices also affected the price of fertilizers, industrial agriculture, and food transportation.

To stabilize food prices and sustainability throughout Asia, Asian governments adopted two approaches: growth elements of macroeconomics and they stabilized food

prices (Palanisamy & Parthasarathy, 2016). Gouel et al. (2016) shared that they believe that those who are poor and/or in a vulnerable state, are in areas that are more susceptible to price increases or decreases. Decreases are hard to come by, and when there is a decrease, it is usually due to a lower quality of food source. In India, a program was established to not only protect the poor consumers, but to protect the producers from losing too much money.

The Public Distribution System (PDS) was established for poor consumers to receive food at lower prices which they would be able to afford. And the Minimum Support Price (MSP) was put into place to protect the producers and was/is funded by the government, but not without controversy. These two programs have helped individuals procure wheat and other commodities in India, but the programs and policies exhibit high costs, the risk for potential inefficiencies in how the programs are managed, and the possibility that the public stocks will increase food prices once again.

Countries such as India, and others on their own levels, have a higher population of vulnerable individuals on the verge of food insecurity. Implementing countrywide policies is a difficult task in underdeveloped countries. There are several factors that can make commodities vulnerable, that include weather, insect or other infestations that devastate crops, drought, fire, and floods. As the world's population continues to increase, should larger countries and their governments consider "storing" food supplies to keep up with the demand? This is something that has been studied in the past, but a strong economy is needed. A struggling economy in developing countries would not succeed because the demand for lower prices would bankrupt the country inevitably and

deplete resources for the growing population. Gough and Accordino (2013) noted that they believe that joint partnerships continue to grow and be popular in local areas because the areas/cities that are considered fiscally stressed, require more attention, resources, and investments of local and state authorities.

In a report published by Jones et al. (2014) it was noted that one of the leading factors that individuals do not buy more health-conscious foods is due to the higher prices of healthier foods. Their 2014 study had the authors identifying items in a shopping cart and noting their prices and comparing and analyzing those prices compared to the "healthier" counterpart. The basket only contained "nutritional items," and excluded items such as coffee, tea bags, etc. (p. 2). Over the course of their study, they concluded that the prices of bread, rice, potatoes, and pasta (foods that were categorized together) kept steady prices. However, fruits and vegetables saw a steady increase over the course of their study, as did milk and dairy foods and meat, fish, eggs, beans, and other protein sources. Their report concluded by saying that they believed that there is a rising gap in the price of healthier foods, compared to those labeled as store brand. Their report also concluded with the notation that they believed that there should be a continued monitoring of food prices by local, state, or the federal government. Increasing food prices are not contained just to the United States but are happening in Europe and across the world.

In 2018, President Trump imposed tariffs on aluminum, foreign steel, tech goods, and other foreign consumer products. Because of these tariffs, some of the U.S. trade partners, including China, Canada, Turkey, and the European Union retaliated by

imposing tariffs on American goods. On July 1, 2018, $12.8 billion in tariffs went into effect on American goods being exported into Canada. These tariffs affected pizza, coffee, ketchup, soy sauce, and other condiments, dairy, and whiskey. The European Union imposed $3.3 billion in tariffs on U.S. goods, including but not limited to apples, cheese, bourbon, pork, and potatoes.

According to Filloon (2018), President Trump in March 2018 signed an executive memo stating that China would be taxed up to $60 billion in imports and penalize them for unfair trade practices. Trump blamed China of stealing intellectual properties belonging to American companies. In April of that same year, China retaliated against President Trump and the United States by imposing tariffs on 128 different types of American goods. After China imposed their own tariffs, Trump imposed a set of tariffs, and then China again retaliated and imposed tariffs on an additional 545 types of American products. Five months later, as the trades wars continued and continued to escalate, Trump imposed another $200 billion on Chinese products, totaling $280 billion in tariffs on all the collective countries. It was speculated that Trump would have continued the trade war with additional tariffs with China, but the United States was running out of Chinese products to impose tariffs on.

Federal Budget Cuts

Federal budget cuts have and will continue to affect the ways in which individuals continue shopping. As wages stay stagnant, the cost of commodities continues to rise, forcing individuals to make unhealthy food choices. Food prices continuously are on the rise, with organic and specialty foods costing much more than the average item. As the

Coronavirus pandemic continues to affect borders, imports and exports, the virus has interrupted many global supply chains. Below are some of the largest exporters experiencing the most interruptions:

1. Russia – has begun to limit grain exports until June 2020.
2. Egypt – stopped legume exports.
3. Argentina – closed roads leading to production areas for soybeans.
4. Canada – onion exports are grounded due to flying restrictions.
5. India – eggplant exports are grounded due to flying restrictions; rice exports are limited due to labor shortages.
6. Spain, Italy, Germany, and France – Eastern European seasonal laborers are not able to cross borders, therefore, asparagus and strawberries are sitting unpicked in farms.

According to Torero (2020), COVID-19 put a lot of strain on the food supply community. Unemployment rates continued to increase drastically, which put strains on local food banks. The strain the pandemic has put on the food supply has increased the need for local, state, and federal governments to address the food market.

Current Gardening Status

Many cities across the United States have not updated their city and residential zoning requirements, which would give individuals the ability to challenge gardens in or on their properties. Many urban cities are adopting zoning and planning codes, which leave individuals in a grey area which can become quite troublesome. Each year, Americans produce an abundant amount of waste. An increased amount of sugar

consumption has led to individuals being more than 68% obese or overweight (Herrmann, 2015, p. 649).

In America today, many of the situations that presented themselves during World War I and World War II are still present today. Many families are facing severe wage shortages and discrepancies and are forced to grow and produce their own food. Families garden to enrich their lives and reduce waste and carbon footprints. While food rationing is a thing of the past, it could be said that eventually the country will run out of fresh fruits and vegetables and meats due to climate change and global warming and all it would take to wipe out a crop or farm would be an inferior disease or infestation. The damaging effects of El Nino and La Nina are being felt across the globe. From droughts and floods to fires and military conflicts, there are many environmental factors that most do not recognize as issues that would keep food crops and gardens flourishing.

Summary and Conclusions

As food insecurity issues continue to rise in the United States, the need for community gardens and additional resources for heavily impacted areas increases as well. Previous studies have shown that gardening is the way of the future and how many will survive. People are choosing to become more aware of their food consumption and where their food comes from, and gardens allow for low-cost growing options. As housing costs and global food prices continue to rise, and minimum wage stays stagnant, many will not be able to afford food, and will have to choose between living and food, and many choose to go without food. Research has shown that gardening initiatives in school settings not only raises the awareness for families and communities but affords the participating

families with alternative means of getting food. Community gardening could be the way of the future and could be the difference between having food on the table.

Currently, the bulk of the literature and research is directed toward identifying the benefits of community garden in terms of addressing food deserts and addressing nutritional issues in communities. However, with all the information available, we are unable to document and describe what the experiences are of those who participate in the gardens and the main reason(s) for their participation. There are several themes suggested in the literature: one is that participants value community building (aspirational motivation). Another is that participants want to share in the social network (social and emotional). A third is that individuals seek to benefit directly from the gardens' produce. The qualitative approach using a phenomenological method delves into the experience in a way that themes can be developed that provide a profile of participation and voluntarism.

Chapter 3: Research Method

The epidemic of food insecurity is still damaging individuals throughout the country. The amount of government assistance available to individuals is within reach of many, but some do not know how to access these available programs, and the availability of resources and assistance is on the decline with the diminishing government funds. With cost of living rising, global food prices increasing, and earned wages not growing as steadily, many individuals wonder where their next meal is coming from. Through the end of 2016, 110.8 million American households experienced a level of food insecurity. There are numerous ways in which communities can come together to help those who are in need, also programs that are established either via a community or through the government to support families. Food insecurity is still one of the largest public policy concerns to date.

The purpose of Chapter 3 is to describe the methodology for this research, which is identified to be a phenomenological study, aimed at studying the lived experiences of the garden participants and their views on food deserts. This qualitative study aimed to identify the perceptions of these individuals and how the community gardens have impacted their lives while living in food deserts, while identifying common themes in the research and data.

Research Design and Rationale

This study focuses on one garden, located in a predominately low-income neighborhood classified as a “food desert.” The subject garden is a standalone garden located in northern Florida, and it serves a lower income neighborhood/community

population. It is a local, faith-based non-profit organization that is in the first few years of the community gardening process. They currently have divided and sub-divided plots on their property, and in connection with the University of Florida, Institute of Food and Agricultural Sciences Extension, they are continuing to help bring the community together in an environment to learn about agriculture, growing a garden plot, and using resources to provide locally grown vegetables for their families.

The research garden site sits in the middle of an under-privileged neighborhood, consisting of low-income families, higher rates of crime, and is in food desert. According to the Office of Disease Prevention and Health Promotion (2020), neighborhoods that contain predominately black and Hispanic families tend to have limited access to supermarkets or grocery stores and are in low-income neighborhoods. The area hopes that a community garden would change the landscape, help the community, and bridge the gap with children and families that are in the area. Though this garden is in this type of neighborhood, it does not necessarily mean that this is the target audience for the garden.

This garden is run as a non-profit, through a faith-based organization, under the supervision of the First United Methodist Church. The organization is in the heart of the neighborhood, and has numerous programs already established to help those in need throughout the community. Their goal is to promote growth by using education, recreation, and spiritual development throughout the neighborhood and surrounding communities. The garden is open to the public, for both volunteering in the garden, as well as having a personal “plot.” The motivation for the garden comes from the interim

director, Miguel Rodriguez, and a 12-year-old girl who had once told him while at a summer camp that she had never eaten a strawberry.

While community gardens tend to achieve the same end results, the perspectives of the individual participants are different. By using a qualitative phenomenological approach to this study, I was not looking to study the end results of the gardening experience, but rather looking to find out the experiences the participants have with the gardens and what their motivations for participating in the garden is. Their life meaning and purposes are what fueled this study. By using these approaches, I was able to focus my results on a micro level, focusing on the individuals.

Role of the Researcher

I had no affiliation or association with either of the two gardens identified in this study, nor did I know any of the participants in the study. The main purpose of the researcher is to conduct the research as an observer-participant, meaning that I observed the garden participants and their involvement with the gardens, and then I conducted the interviews of these individuals.

One of the roles that the researcher has in this type of study is that the researchers' past experiences and knowledge can be used as valuable guides for the study. If it were not for the enjoyment of gardening and wanting to make a difference for those who are in food deserts or who are experiencing food insecurity, then I would not have been led to this phenomenon and this study would not be taking place in this area. This type of research can broaden the understanding of complex findings in research and can be used

as a valuable tool in further studies and help to bring awareness to community leaders to petition for more help for those in need.

The Researcher

I have worked in business settings for 17 years and hold a Bachelor of Science in Business Management, a Master of Business Administration, and a Master's in Philosophy. There were no conflicts of interest identified, such as a relationship with me, a working contract, or a reporting relationship, meaning that the participants do not work for or report to me in their place of business. I was trained in the necessary skills needed to carry out the study. In my places of business, I carried out numerous interviews with intent to hire during my career. I have all the necessary interviewing skills, such as listening, engaging, communicating, and decision making. These common traits have been enhanced through different job opportunities and positions I have held.

Methodology

I decided that a qualitative method was the best approach to address this research question and study. The qualitative approach allows for the researcher to conduct her research using individual interviews and by conducting group discussions to gather more information. According to Trochim (2020), in research, a qualitative approach is basic in that it clearly explains the purpose of the research, the role of the researcher(s), the stages of the research study, and the method in which the data will be collected and distributed.

This study employed a phenomenological framework. According to Miller et al. (2017), researchers who use the phenomenological framework to conduct their research are trying to assess the details of the participants and their ways of life and discover the

meaning behind their participating actions. This phenomenological study will focus on those individuals who have directly experienced food insecurity, living in a food desert, and/or those who are or have participated in either of the gardens. Neubauer, et al. (2019) mentioned that the originating work conducted by Martin Heidegger is what sets the scene for the formation of hermeneutic phenomenology. Hermeneutic phenomenology seeks to not only understand the lived experiences of study participants, but it examines a deeper layer of the human in how their lifeworld experiences influence their experiences. This type of research allows researchers to interpret the information received from participants to shape the results of the study.

Research bias can be avoided a few different ways when conducting research. The Enago Academy (2020) identified three ways in which to avoid research bias. They first highlighted how important it is to keep detailed records of all communications and timelines with your study. This is helpful if something needs to be recalled from the beginning of the study or to validate information from the participants to ensure data accuracy. They then noted that planning the study early and ensuring that there is enough time to finish it in the allotted time is especially important. The researcher does not want to run out of time while they are conducting their study. They want to make sure to plan enough time for unexpected delays and factor that into the timeline of your study. And lastly, the Enago Academy noted that checking and following the research guidelines set forth by one's institute or sponsor is key to beneficial research. Each institute has their own set of guidelines that need to be followed. If not, then the researcher risks having to redo parts of their study, or their study in its entirety.

One major way in which to prevent researcher bias is to make sure that all the data collected is accounted for and interpreted, no matter how large or small the detail. This type of research can broaden the understanding of complex findings in research and can be used as a valuable tool in further studies and help to bring awareness to community leaders to petition for more help for those in need. Keeping all collected data organized by participant is important so that there is not a cross in information that could potentially be detrimental to the research study.

Participant Selection Logic

To find participants for the study, I requested volunteers from the adult participants at the garden, and if no volunteers were identified, I planned to randomly select garden participants until 10-15 participants were identified. A flyer was posted at the garden site describing the study, identifying the need for volunteer participants, and making a request for anonymous volunteers for the study. The adult participants chosen were those who are already participating in the garden or participated in the garden within the past 6 months.

The participants from the garden were then given an informed consent form and asked to fill it out before their participation in the interview. This form provided them with details about what their information is going to be used for, how it will be used, and detail the purpose of the study. This form allowed the participants the ability to determine whether they wish to continue with participating in the study. The adult participants were fluent in the English language, and their education level and employment status were not taken into consideration for this study, but just used as a background demographic. I was

neither directly nor indirectly involved with the research location. The study had a goal of recruiting 10-15 participants for the data collection process, or until saturation occurred.

Instrumentation

For this study, an interview sheet was passed out to each participant, with less than 10 questions to answer for their part. The questionnaire was the same for each participant and was analyzed via written correspondence. After the interviews with the participants were conducted, coded, and sorted, there were no additional questions identified for further follow-up.

Procedures for Recruitment, Participation, and Data Collection

Data collection for this research study was in the form of an in-depth, open-ended interview that was transcribed and coded accordingly. Trochim (2020) stated that the main goal of conducting an interview is to probe the interviewees about their interest in the subject/topic at hand. The questions included in the interview were semi-structured, which allowed the participants to describe more deeply the extent of their participation in the garden and to gather background information and not give yes or no answers. For this study, I only recruited adult participants for the interviews to avoid ethical issues with recruitment of minor participants. The interview questions were open-ended questions with the goal of the participants expanding on just a single phrase or word answer. The questions addressed the goals of the gardens, steps taken for garden conception/formulation, and general information regarding participants (i.e., age, occupation, reason for participating in garden, sex, race, etc.). Qutoshi (2018) noted that

data collection and analysis tend to be messy, as not all data can fall into neat categories, but that there are many ways in which the data can be linked and categorized together.

Thomas (2006) mentioned that using an inductive approach, aids in the understanding of complex data by recognizing themes in the raw data collected in the research. The author later mentions that one of the primary reasons for using an inductive approach is to allow the data and themes to emerge on their own, rather than be constrained by structured methodologies. In essence, the themes would emerge naturally. For this study, I used a generic inductive research approach. A generic inductive approach has only within the past 10 years been identified, so there is little information written regarding the topic.

Liu (2016) noted in their study that by choosing to use an inductive approach, they were able to experience more flexibility with the research methodology that they chose. I selected the generic inductive approach for two different reasons. First, I was studying the life experiences, or phenomenon, of the garden participants, so this fell under a phenomenology study. The second reason is that I looked at a sample size of 5-7 participants total, which was an appropriately sized sample for the size of the garden, and for the phenomenological study.

The questions chosen for the interviewees at the research site focused on relevant information including the behaviors of the participants, significant positive impacts on the participating individuals, as well as whether the garden would potentially benefit the community. What could improve or complement the gardens for greater use? Collecting data from both gardens was a challenge, but in the end, the data collected were used to

identify specific characteristics needed to improve the gardening initiatives at the community and local level with the possibility of enhanced measures of the surrounding areas.

The data at the research site were collected using a voice recording device and were transcribed by hand following the interviews. The data were sorted, transcribed, and itemized manually, since the sample size of the participants is low. From there, I read the responses several times to ensure accuracy and to make notes in the margins of the data. I then identified the categories within the information and code accordingly. By sorting the information into categories, I was able to pick out words and phrases that relate to the categories and decide the common themes of the research data.

Some of the standards that were adhered to within the interview are how the garden representatives interact with the participants; what behaviors are common among those representatives; what common characteristics do each of the participants share; is there a financial correlation associated with the gardens; and what are the uses of the foods once the gardens are harvested? I was then able to develop codes and categories using the data collected.

Issues of Trustworthiness

Credibility

To increase the level of trustworthiness of the study, the researcher plans to triangulate the data collected to maintain credibility in the study. By doing so, once the data is transcribed from the interviews, the researcher will then go back to the participants, and let them review their interview for accuracies in information and to

make sure that the researchers' transcription is accurately depicted. Since all the participants will be answering the same questions, once they are identified for the study, they will be given the option of having the information before the interview or receiving it at the time of the interview. This process will ensure that the interviewee understands the information and questions, and if there is a question that arises regarding a question, they are able to receive the answer from the researcher.

Ethical Procedures

As the researcher will be interacting with individual participants of the gardens, it is extremely important to be mindful of any ethical concerns that the participants may have. Any concerns in this study, especially with those dealing with human participants, will be addressed with and by the Institutional Review Board (IRB) for Walden University. One of the first steps to take when conducting "research" on a human is to have an informed consent form, which Walden provides to the researchers, that will be handed out to all the participants of the interview process. This form protects the privacy of the individuals and ensures that they are aware of their rights in participating in the study. The researcher will keep the data sets in a locked fireproof box in their home for the required period to hold data of five years. This information will not be accessible to anyone else in the researchers' household. There is no remuneration for the participants, whether financially or via a gift card

Summary

Chapter 3 identified the who, what, when, where, why, and how of the data collection processes for this research study. The researcher will study one garden, its'

participants, interview the garden participants, and collect/transcribe/code the data received. Specific guidelines will be followed for participant protection where needed; permission will be obtained before any interviews will take place, and the researcher will work with the garden to ensure that no one is at risk for ethical concerns. After the interviews have been completed, the researcher will compile all the information together, and formulate Chapter 4.

Chapter 4 will incorporate all the information from the previous three chapters and focus on simplifying the information obtained from the interviews and the researcher will code the information accordingly. The information gathered will shed light on the lived experiences of the participants and their feelings on food deserts and how their participation in the gardens impact the gardens, their everyday lives, and the food deserts in their areas.

Chapter 4: Results

The USDA identifies food deserts as areas without adequate grocery stores, bodegas, or convenient stores, within a certain area. In the United States, approximately 23.5 million individuals reside in these identified areas, and almost half of them are living at or below the federal poverty level. And while this population struggles "normally," recently the pandemic has increased those struggles and placed even more burdens on these individuals and families.

The purpose of this study was to discover the "lived experiences" of individuals who were/are involved in community gardens that are in recognized food deserts, and that was the intent of how I designed the research question of: What are the lived experiences of people involved in community gardens who reside in food desert environments? The study aimed to identify how gardening affected individuals' lives, and to what extent individuals feel the gardens have helped them. While many published studies identify the mental, physical, and social benefits of community gardening, this study aimed to explore and understand the lived experiences, or the choices and options that led in the participants' participation in the gardens; are they looking for something to do to pass the time of the pandemic, or are they struggling to afford fresh fruits and vegetables due to hardship?

Research Setting

The setting for the study was a single garden, unbeknownst to the participants, in a USDA recognized food desert. The garden itself covers less than half the size of a football field, and contains 32 individual plots, as well as four ADA accessible plots. The

plots are approximately 12’ x 4’ x 12’ each, and the gardeners are free to grow what they want, but at the discretion of the Master Gardener who gives advice about growing seasons and pesticides, etc. A few of the participants noted in their interviews that in addition to their “assigned” plot, they also participate in the hydroponic garden that is on site. This “garden” is purely managed by the Master Gardener and volunteers from the garden. The garden collects “seasonal dues” for their seasonal growing periods, spring, and fall. Each period is $20. That money offsets the irrigation costs and routine maintenance to the property. So, for $40, the participants can grow their choice of product in their assigned plot.

Demographics

For this study, there was no apparent “demographic” represented in the participants. The study aimed to interview participants who gardened at community gardens identified in USDA food deserts. The study did not call for specific demographics to be interviewed. Community gardens do not cater to one demographic over another. The community is allowed to participate, and there were no specific demographics or characteristics relevant to this study. The demographic questions asked in the interview were very broad and non-conforming.

Holly Hill, Florida, where the garden was located, covers approximately 4.5 sq miles and has a population of 12,958. Its demographics are as follows: 73% White, 17% Black, 9.4% Hispanic, and 1.5% Asian. According to the 2020 Census, the median household income is $35,231, and 29.6% of the population is living in poverty and below the poverty level (United States Census Bureau, 2020).

Table 1

Gender and Race of Interviewees

Interviewees	Identifier	Race	Gender
Garden participant	GP 1	White	Male
Garden participant	GP 2	Black	Female
Garden participant	GP 3	White	Female
Garden participant	GP 4	Hispanic	Female
Garden participant	GP 5	White	Male
Garden participant	GP 6	White	Female
Garden participant	GP 7	Black	Female
Garden participant	GP 8	Hispanic	Male

Data Collection

For this study, the identified sample size was five to seven participants. After communicating with the garden leads, they then sent out an email to their garden participants asking if anyone would be willing to participate in the study. The leads mentioned in the email to forward all questions to the researcher, as they did not have the ability to answer any of the questions that the future participants might have. The leads did exactly as I asked them when sending out the email, and that was not to specify a demographic for the interview and study. I did not feel as if this was important for the information gathering.

I received responses from eight individuals via email, who were willing to participate in the study, exceeding the anticipated sample size of five to seven. After initially communicating via email regarding the process of the study and how I was going to collect the data, Zoom meetings were set up to conduct the interviews. A copy of the questionnaire was emailed to each participant prior to the Zoom meeting to ensure that they were given time to go over the questionnaire before the interview. By speaking and

emailing with the participants, it was easy to see that there were going to be a few male participants in the study. Initially, this surprised me, as often, society has indicated that more women participate in gardening activities than men. For this study, I do not feel that the men who participated would have changed or skewed any of the results. The men of the study actively participated in the garden just as much as the women in the study and were just as successful. For future studies however, demographics could ask or specify either or gender to conduct the study. In a larger study setting, this might prove to be a benefit for future information received.

Since I was limited on time available to conduct the study, the participants were given five specific dates in which they could "schedule" their Zoom interviews for. On two of the specified days, more than one Zoom interview would be held, while the rest were individual days. All the Zoom interviews took place during the early evening hours, as to accommodate my and the participants' work schedules. I conducted the Zoom interviews from a quiet bedroom in their house, away from distractions and outside noise. During the initial contact with the participants, I suggested the same type of area to the participants, to preserve the integrity of the study.

At the start of the Zoom interviews, I prefaced the interview with information pertaining to the study to each participant and gave general information about what the study was about. I then told the participants about how the questions were structured, open-ended, and told them that that allowed them to answer the questions however they chose, and that they were designed to not be answered with a basic "yes" or "no" answer. Since there was no time limit designated for the study, I let the participants know that the

time they spent was dependent on how much or how little the questions were answered. I then asked if the participants had any questions and proceeded from there.

I began the interview process by just speaking with the participant about general things: the weather, how they were feeling, etc. After a few minutes passed, I let the participants know that we would begin the interview and started asking the participants the questions listed on the questionnaire. This was provided to them before the scheduled time when they made their selection on date and time of interview. The questionnaire consisted of 10 open-ended questions which allowed the participants tell their story. After the initial questions were asked, the researcher went on to the broad demographic questions. The interviews wrapped up with asking the participants if they have any additional questions other than what was asked. Each interview lasted between 30 and 45 minutes each.

The participants were not selected to participate but volunteered in the interview process. When the email was sent to the gardeners, it was noted the type of study I was conducting and asked for volunteers to participate in the study. The participants were not offered any compensation for participation and contacted me via email with their willingness to participate after their initial email request. All the interviews were conducted and recorded electronically via the Zoom online platform. After each interview concluded, on the Zoom platform, I was given the opportunity to leave the recording there for future access and to download the recording, which I chose to do.

Because the participants were asked to volunteer for the interview and study, this created a level of volunteer bias, meaning, that not all the target population of the study

was represented because volunteers were asked to participate. For this study, I feel as if the data were distorted because of the lack of diversity in the participants that volunteered for the research study. Volunteer bias happened for this study because the study asked for volunteers and did not specify a specific demographic(s) needed to achieve different variables related to the study. I feel that this type of bias skewed some of the results and themes of the study. One of the ways that this bias could have been avoided was by expanding the number of participants needed to achieve the targeted population and represent all types of demographics of the area.

Being able to download the recording made it easier for me to begin the transcription process. After I had transcribed the documents, I sent the document through Microsoft Word, which has a transcription program, to check for accuracy. After the transcriptions were completed, I sent the completed transcriptions to the participants for them to review for accuracy and their recollection. After their approval, it was time to begin coding.

Data Analysis

The purpose of this study is to recognize the lived experiences of individuals participating in a community garden. The overall findings of the study hope to paint a picture of why individuals participate in gardens, and to determine if the same type of garden would be beneficial in other areas of the food desert, or in other areas around town. Also, I hope it will raise awareness to area businesses and governments about the need for additional resources allocated to these areas in need.

The stated research question was: What are the lived experiences of people involved in community gardens who reside in food desert environments? To answer this question and to identify the overarching themes of the study, the participants were asked 10 interview questions (see Appendix B). From there, the interviews were transcribed, themes emerged, and the themes were identified. The following questions were asked of all the participants, followed by a summary of their responses.

Question 1. Are you familiar with the term *"food desert?"* Do you have access to fresh fruits and vegetables on a regular basis? (A *food desert* is an area with limited access to affordable and nutritious foods, and an area where a grocery store or bodega or convenient store is not within proximity).

This was the first question that was asked of the participants, and it was asked to see how they responded to their knowledge of what a food desert was. The answers were surprising, and that most (five participants) knew what a food desert was, as many people do not know what this term means. But what was surprising was when I let the participants know the distance the closest stores were to the garden, they were taken aback because they were positive that those stores were closer. Most of the participants (six participants) were not aware that the garden they participated at was in a USDA recognized food desert. Many (five participants) of the individuals did not live close to the garden, so they were unaware of the situation. When the initial shock of the store distances wore off, I believe that the participants looked at the garden and the area differently.

Question 2. Can you describe your initial interactions with the garden, and how that evolved to where you are now?

This question was asked for two reasons: one, to find out how the individuals found out about the garden, and two, to see to what extent they were still participating in it. From the participants responses, three of the participants have been there from the beginning of the garden (2019), and some staggered into their plots. A few of them (three participants) mentioned that they started off with one plot (4' x 6' plot) during one of the two growing seasons (spring or fall), and that quickly evolved into them having and managing more than one plot. They said that they realized they enjoyed having not only vegetables, but also wanted to help with the bee program by planting pollinating flowers.

Some of the initial interactions among the participants was not with the garden, but with the pickleball facility that was constructed adjacent to the garden. Those participants decided to join the garden once it was completed being organized and have been with it since. Some individuals joined after the initial growing season and continue to participate. Three of the eight interviewees mentioned that they also participate in the bee "garden" and with the hydroponic garden, which gives their "crop" to the pickleball facilities' restaurant on premises.

Question 3. Are you the main person responsible for purchasing groceries in your household? What does a typical shopping trip look like?

Most of the participants (six) answered that they were the main person responsible for purchasing groceries for their household. They said that they tend to shop weekly,

mostly on a set grocery budget, and tend to stick to the outsides of the grocery store, where they find their meats, fruits and vegetables, dairy, etc.

Question 4. What is the main reason that you are participating in this garden?

This question received a variety of answers. Some of the interviewees (three) mentioned social interactions and just "being outside" in the Florida weather, while some (four) mentioned it was an escape outside during the pandemic lockdown. They acknowledged that being outside in the sunshine and fresh air helped their mental health and provided them with a peace of mind that they were far enough away from other participants and outside, which would prevent them from contracting COVID-19. Some (three) participants mentioned that they go to the garden to seek physical activity outside and to socialize.

Question 5. What are the types of fruits and vegetables do you like to grow in your garden plot at the garden?

There were a few different responses to this question. Some of the participants solely planted and grew vegetables, while others only flowers, and there were two participants who grew both. The garden initially provided the soil for the garden beds/plots. As plants were grown, many realized that there were issues with the soil that needed tending to, so they added their own soil amendments (phosphorus, pea gravel for better drainage, manure for fertilizer as chemical fertilizer is not allowed in the garden, etc.).

Many of the participants said that they purchase plants that are already growing from places like Home Depot or Lowe's. They mentioned that growing plants from seeds

at the garden is difficult because of the soil and the conditions of the garden. They mentioned that there was very little shade, and that to establish growing seeds was difficult because of how often the irrigation and watering systems were run.

Question 6. How would you describe your gardening experience?

One of the participants had previous gardening experience as she grew up going to her grandmother's house during the summer, who had a garden. She would help her grandmother tend the garden when she was there. Other participants (three) had little to no experience gardening and wanted to "try their luck." And the remaining participants (four) had some previous experience but were not as familiar with some of the knowledge that the others were.

Question 7. To what extent have you participated in gardens before?

Like mentioned in Question 6, one participant had previous gardening experience. Many participants said that they had plants at their houses, both inside and out, that they tended to. They mentioned that they would not necessarily consider that gardening, but that they would consider it as having some planting experience.

Question 8. What is your relationship to anyone here at the garden?

The consensus was unanimous at the garden in the fact that none of the participants knew anyone at the garden before they began their plots. They slowly grew to be friends but did not socialize with each other outside of the garden. It was mentioned that the garden participants once took a "day trip" to another garden in a neighboring city to see what they garden was like and to see if they could benefit from any of their practices.

Question 9. How much time do you spend a week at the garden? What is your "ritual" when it comes to coming to tend your garden space?

Three of the eight participants still work full-time, so they were unable to go tend their plots as much as others were. They spent the least amount of time at the garden, averaging approximately 45 minutes per week. The other participants spent longer periods of time at the garden as they are retired. These retirees are also members at the pickleball facility next door, so they would spend time at the garden when they were going over to play and meet up with their friends. They averaged typically 1-1.5 hours at the garden each week.

All the participants said that they tended to spend less time at the garden in the summertime, as there was no shade, and the heat in Florida deterred them from their plots. They would either try going early in the morning, or later in the evening when the sun was not so hot. They mentioned that there was no shade for them to rest under or sit under while at the garden, and they looked forward to their fall plots rather than spring/summer plots.

Question 10. What type of support do you feel that the garden has provided you and your family?

All the participants confirmed that the gardens did not produce enough fruits and/or vegetables to put a dent in their consumption amounts. They said they did it for the joy, and not for the end results. Some said that they used some of the tomatoes that were grown to add to salads or sandwiches, but there was not enough grown to say that the garden provides substantially for them.

Summary of Interview Questions

Three primary themes emerged after the interviews with the participants:

1. The first theme, community, emerged after the interviews. It was used in various ways, but the way that was most apparent was used in the context of belonging to a community of likeminded individuals. Not many locations can say that they have an area dedicated to hydroponics, garden plots, or bee conservancy, and those participating in the gardens mentioned feeling part of a "community." They felt accepted and some grew friendships out of their time at the garden.

2. The second theme that emerged were of mental and social health. Most of the participants noted that especially during the pandemic lockdown, that they were able to get outside to enjoy the fresh air, and that helped them with their mental health. They also used gardening to participate in a social activity during the pandemic. This allowed the participants a little "freedom" during lockdown. They were able to be outside, and to see and speak to others when they were at the garden. A few of the participants mentioned that they were retired, so being able to leave their house for an activity helped their mental health.

The results of the interview questions were unimpressive. I thought that there would have been more diversity in the study participants, with different backgrounds, and different levels of need because of where the garden is located, but this was not the case. After conducting the interviews and reviewing the demographic questions of the, it was apparent that the participants lacked diversity in demographics. All were middle-aged,

most were retired, and none required gardening or the activities to help with their families.

Evidence of Trustworthiness

Credibility

The data for this research study was collected and analyzed as stated in Chapter 3. The interviews with the participants were recorded, transcribed, and coded consistently throughout the study. Each of the participants procedures were the same. The participants chose where they would be conducting their interviews and I had no influence on their decisions. The data files are stored in a way that they are easily accessible for the researcher to retrieve. The data was triangulated as stated in Chapter 3. I sent the participants the interview questions before the interview so that they were familiar with the questions and so they would be able to think about their responses, and to think of any questions that they would have as follow-up to the interview questions. Many participants answered the questions as they were asked, and only two of the participants asked me to describe the nature of the study deeper at the end of the interview. None of the participants stuttered in their responses, and they did not exhibit any issues in answering the questions. I was not under the assumption that additional help was needed from anyone outside of the participants (i.e., translator) for the interview questions.

After the interviews were transcribed, I performed an aspect of credibility by member-checking with the participants. They were given their transcriptions and asked to verify and go over what their answers were, and over all the transcriptions to make sure that their answers were what they intended them to be. They were also given the

opportunity to make any changes that they felt necessary, whether it was by adding information or by changing some of their verbiage. They then sent the transcriptions back to me for further use.

Transferability

This study could be transferred to other avenues of study. This study would be beneficial if the content was changed to address the issues and to study the lived experiences of those in more specific demographic areas, perhaps addressing demographic areas that are struggling more than others. A study like this would be beneficial in areas hardest hit by the COVID-19 pandemic, or a more economically diverse area. Maybe studying experiences in areas where gardens have been established for longer than four or five growing seasons. Larger gardens would also be beneficial in studying participants. The current study saw participants pay to reserve their plots and grow per season, but perhaps addressing the monetary aspect of these gardens is also something to look at. Should those who participate in these gardens, in food deserts, and in lower-income areas, be responsible for "paying" to have a plot reserved and to grow vegetables and/or fruits that they're struggling to pay for in the grocery stores?

Study Results

The lived experiences of the garden participants (GP) vary from person to person. Some of the participants use the garden as a type of "getaway" and to ensure that they spend time outside. While the pandemic has been hard on everyone it touches, there are some that find the social interactions that the pandemic sidelined to be detrimental to their health. Many individuals relied on physical activity throughout their day during

lockdown to maintain clarity and to keep from falling into dark places, and two of the coded themes, mental and social health, prove that the garden is beneficial to these individuals.

This study explores the lived experiences of participants who participate in community gardens located in food deserts. This idea compelled my interest to explore lived experiences when I had had the opportunity to container garden previously, in an area where I did not have access to a yard, and when I did not have a lot of extra money for what I would consider frivolous, or more expensive, varieties of fruits and vegetables.

The chosen framework was a qualitative framework which was guided by phenomenological research. The results for this study are a conclusion of the lived experiences of community garden participants and their willingness to share their perceptions and experiences of gardening in a food desert. Initially, I set the framework to be conducted by observing and interviewing, but when the COVID-19 pandemic hit, my research strategies had to be reconfigured and realigned with the happenings of the world.

Themes

After conducting the interviews, I transcribed all the interviews and put them into a Microsoft Word document. I went through each transcription and created comment bubbles to identify overarching themes of the interviews. I reviewed all the material and took the codes that were identified, there were 65 phrases most used in the interviews (Figure 1). After those 65 phrases were counted, it was noted that the three common themes were community, mental and social health, and plot/gardens. Though mental and

social health are lumped together as one for a common theme of "health," Table 2 lists them separately showing how many times they were mentioned in the interviews. These themes were noted most frequently in the interviews and after the transcriptions and coded analysis. The frequency of how these emerged are noted in Table 2.

Table 2

Primary Themes

Theme	Frequency
Community	57
Mental health	46
Social health	43
Garden/plots	37

In addition to the themes listed above, there were also four additional, or secondary themes: affordable, experience, excited, and recreational. During the initial coding exercise, these responses were also represented in the interviews and occurred with a high frequency. Other responses given by the interviewees and coded can fall under the three main themes and four secondary themes and create a subset. The frequency of the secondary themes is represented in Table 3.

The participants mentioned that while they spent money on either seeds or plantings, their garden yield was not significant enough to provide for their families. Many felt that if the plots were larger in size, and they had more adequate surroundings and assistance, then they could probably yield more, and provide more with their families. Garden Participant 4 (GP 4) described the number of fruits and vegetables that their plot produced and how they incorporated it in their food as, "Not a whole lot. 'Because to me you don't get that much out of it that I could rely on that. I mean, I

wouldn't have fruits and vegetables if I relied on the garden. It might give me 5% or less of what I use, you know OK?"

The participants mentioned that they used the garden experience more for recreational use and participation more than anything. They said that when the garden was being planned, formed, and constructed, that their general feelings of excitement rose drastically. They were excited to be able to participate and see what they could do given the opportunity. Two of the eight participants reside close to the ocean, which limits their gardening venture because of the intolerance to salt water/air. These two participants seemed the most excited about this new exercise and activity. They mentioned that they tended to go to the garden more on the weekends and stopped occasionally on their way home from work.

Table 3

Secondary Themes

Theme	Frequency
Affordable	30
Experience	24
Excited	22
Recreational	19

A continuously growing body of research addresses and suggests that gardening and interacting with the natural environment can promote a reduction in stress levels. By conducting the interviews it was apparent that the COVID-19 pandemic had started to take a toll. When making small talk either before or after the interviews to shake the interview jitters, when COVID-19 or the word "pandemic" was mentioned, large sighs were audible, and a sense of sadness appeared over the participants. This leads me to

believe that though “community” was the higher-ranking theme of the discussion, the mental/social health themes were more on their minds than “community.” The pandemic hit everyone differently and caused a lot more harm to individuals than most believe.

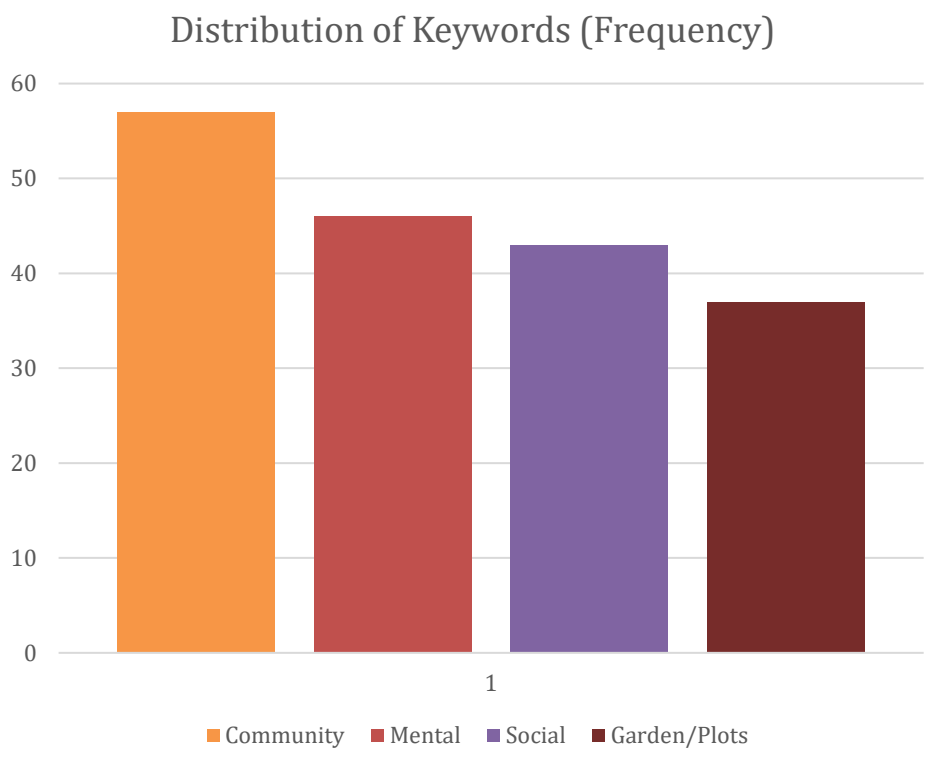
Figure 1

Word Cloud Graphic Representation of Coded Themes

Figures 1 and 2 demonstrate a representation of the relationships of the coded themes for the study. The visual representation of the themes helps to illustrate the relationship that the interviewees painted with their gardening and lived experiences.

Figure 2

Distribution of Keywords (Frequency)



Summary

The purpose of this study was to explore and identify the lived experiences of community garden participants in gardens that were in food deserts. The participants provided honest, detailed answers to the study questions, and told their gardening "story." Previous knowledge of information regarding food deserts was prevalent among the participants, as well as their general knowledge and gardening capabilities. Some had previous home gardens, while many grew up with a relative who gardened in their free time. Many described using gardening as an output for stress, mental health, and anxiety during the COVID-19 pandemic, and to just "be outside." Their lived experiences do not

necessarily describe an emotional feeling per say, but it illustrates a basic picture of their life during a pandemic and how the participants coped with the given situation.

Some of the participants indicated that they were retired and used their garden plots to socialize with others, as well as to “see” and “taste” their accomplishments. It was very apparent that the space allotted for the plots would not allow a significant planting area for the participants to use as their main source of fresh fruits and/or vegetables, but many used it to supplement what they currently purchase at the grocery stores. The questions in the questionnaire produced answers relevant to the study and will provide insight as to what future studies can focus on to increase the prevalence of community gardens and their work.

Chapter 5 will begin with an interpretation of the study and why it is important that it was conducted, and to recognize the voices of the study. I explore the conclusion to the study, and the recommendations for future research that were reached by conducting this study.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to discover the "lived experiences" of individuals who were/are involved in community gardens that are in recognized food deserts. The goal was to study and question the participants to identify how gardening affected their lives, and to what extent the gardening activities have changed them. Published studies do not reflect information on "lived experiences," but they rather focus on the physical, social, and mental benefits community gardens have on their participants.

While many published studies identify the mental, physical, and social benefits of community gardening, this study explored the lived experiences, or the choices and options that led in the participants' participation in the gardens; are they looking for something to do to pass the time of the pandemic, or are they struggling to afford fresh fruits and vegetables due to hardship?

One of the increasing challenges that has surfaced during the duration of this study was the COVID-19 pandemic, and as of recently, an increase in economic inflation. The inflation is driving up prices on all commodities and in every area possible in the grocery business. Many individuals who live or reside within a USDA recognized food desert live at or below the federal poverty level. This puts a major strain on their grocery budget, and many state and federal programs do not allow the purchase of perishable items.

Chapter 5 provides an explanation of the study findings, describes the limitations of the study, offers suggestions for social change, and provides some recommendations for future research and studies based on the results of the study.

Interpretation of Findings

This study focused on how the lived experiences of the garden participants played a role in their gardening experiences. The study highlighted the participants of a community garden, located in a USDA recognized food desert in Florida. This study addressed the following question: What are the lived experiences of people involved in community gardens who reside in food desert environments?

The method of conducting this study included initial document reviews to determine to what extent "lived experiences" had been studied, and interviews with community garden participants to determine these experiences. The document reviews pointed to positive social change in other areas outside of the lived experiences of the garden participants. These documents focused mainly on physical health attributes, as well as focusing on documented levels of obesity. The document reviews and interviews point to a long-range positivity model in those who participate in the gardens. The findings of the study suggest that the garden partnerships are currently satisfactory, but future studies on gardens where local and/or state governments or businesses are involved would be extremely beneficial to additional studies and research.

In this study, seven themes were identified from the interviews conducted. The three main/primary themes were identified as community, mental and social health, and garden/plots. The secondary themes identified (four) were affordable, experience, excited/excitement, and recreational. These seven themes could be transferred to additional research studies in how to describe the experiences of community garden participants in other demographics, but may also work to influence more city, county, and

community partnerships. It may be of interest for these future partnerships to be addressed in future studies.

The need for expanded research is eminent. Garden representatives should investigate recruiting stake- and/or shareholders to partner with their gardens to bring more awareness to the desperate situations that are mounting. The extreme rise in the cost of living and the cost of commodities and everyday essentials is wearing individuals down and forming some to make decisions that no one should have to make. Inflation is taking a toll on individuals and because of this, many are looking for ways in which to "cut corners," or to find extra ways to bring home extra money. The types of stakeholders that the gardens could benefit from are endless. They could be lawmakers, local charities, schools, businesses, etc. The strength and positivity that outside organizations and government entities can bring to the gardens to grow awareness of the issues at hand is immense.

The participants stated that while the garden plots are nice, some had wished they were bigger, and that there was better irrigation and a better design for the garden. The long-term prognosis of the garden is dependent on a few factors. One, the garden should/could reach out to area businesses for sponsorship or partnership to alleviate some of the costs that participants just cannot afford and to alleviate the costs of upgrading the facilities. This could be in the form of volunteer work, fundraising, or by just raising awareness for the garden and their target audience. Second, by recruiting outside help, word of mouth spreads, and so do the number of interested individuals, and just by chance, things might land in the right path.

Based on the detailed analysis that was conducted on the interviews through coding, most of the participants said that one of the reasons that they participate in the garden is for the mental and social health. This should be an eye-raiser for future studies as well. The pandemic has placed a burden on the shoulders of many, including those retired and/or living alone. The interpretations of the interviews suggest that the participants' experiences need to be taken into consideration for future studies. A study conducted outside of the parameters of the pandemic will be beneficial in comparison to what those are experiencing now.

During the coding and analysis of the interviews, I was able to determine that most of the themes were "actions," and not the "feelings" of the participants. The interviews resulted in a few of the participants wishing that there was more space and more resources at the garden sites. There is a desire from the participants for shielding from the sun during the Florida summers so that they can spend more time outside at their plots and better irrigation systems. They also expressed their want for more direction and instruction from someone who knows more about gardening and is more present when needed.

Limitations of the Study

There were a few limitations for this study. The first is that I was limited to how the interviews would be conducted due to the pandemic and COVID-19 restrictions in place both by the school and by the surrounding areas. I feel that this limited the personal interactions with the participants, and even though we did a video conference, the whole process seemed impersonal. Another limitation was the time frame that was available to

conduct the interviews. Since the participants were limited to times and dates, they were available, it made the process feel rushed and again, impersonal. And lastly, there was limited access to participants for the study. A few individuals responded to the lead email to express whether they would participate, but then they would try to point to another person who "would be better to participate." Each time, that "nominated" person was not on the list of those who responded that they would participate.

A second limitation was that the population sought for the study was very generic, and not specific. After conducting the interviews, most of the participants were within the same age group, having the same work background (retired), and this severely limited the concept of "food desert" in the study. Yes, the garden was located within a USDA recognized food desert, but the participants were not necessarily "struggling" or experiencing hardships that would influence them to participate in a garden setting.

Recommendations

Further research is recommended for this area of study. The environment and situations in which many "need" to garden are everchanging and flow with the ebb and tide of society. When this study was started (in 2011), the world was in a much better place; there were no wars, the COVID-19 pandemic was not even ravaging the world or a thought, and life as we knew it was simple. There have been many changes to the scope of the world and individual lives which have caused the writing and research strategies to change constantly during this research process.

With that said, additional research is recommended for studies on participants and their reasoning behind participating in community gardens. Perhaps, gardens outside of

food deserts, that could potentially have more willing study participants, or even adding different demographics to the research criteria. Either way, community gardening is everchanging. It should be noted that although a specific demographic was not targeted for the research, this could be one consideration for future research. Possibly target minorities who participate in food gardens, in and around food deserts, or those who have been hit the hardest with problems with COVID-19.

As previously stated, volunteer bias happened with the participants. For future studies and research, a specific group of demographics needs to be identified and requested of participants. I thought for my study, by asking for a group of participants to volunteer, a more diverse group would have manifested. Also, a larger group of participants needs to be sampled. By choosing a smaller sized study group, I felt that the information would have been more concentrated, and therefore, contain more information and variables to the data. But that was incorrect, and in hindsight sticking to my initial goal of 10-15 participants should have been followed. I believe a larger study group would have brought greater information and variables and possibly different themes.

I feel as if there was an initial struggle pulling out the themes of the study, as they were all so broad from the participants. The interview questions did not seem to be narrow enough to ensure smooth research. In future studies by using the interview questions listed, and then narrowing them down to identify one or more different variables could possibly bring out more narrowed down themes. Inserting questions related to the COVID-19 pandemic, and more specifically how the pandemic affected the finances of the participants, would identify those individuals who truly need the garden(s)

versus someone who is just doing it for recreation. This study sought to identify lived experiences of individuals participating in community gardens that were in a food desert. Nowhere in any of the data collected was it apparent that the participants “needed” to use the garden for sustenance or to supplement their family.

One thing a future study should consider is changing the method of conducting the study. For this type of study, I believe that by adding an extra layer of observing the participants is needed. Gardening is a hands-on type of activity, and I believe that observing the participants will add a level of validity to the study and ensure that there is a sense of diversity of the participants.

The areas in which these food deserts exist need to be vested carefully, either via state or federal money, to enhance the quality of living in these areas. Long-term relationships with partnering agencies are dependent on the successful deployment of opportunities in the areas. If the partnering agencies and the individuals in these areas do not share a long-term common goal, then the gardens and their future success will not be beneficial to the communities. Any new partnership approached and formed should look to benefit the community. Understanding the dynamics of these areas should be the number one priority of these partnering agencies, and their business models should reflect that.

New partners will need to remember that these participants are vulnerable individuals. In addition to the garden, the individuals might need additional resources. The partners should not just focus on food insecurity in the community, but what they can do to enhance the quality of living in these communities and with the individuals. By

enhancing the opportunities to turn the communities around, they can help paint a different picture of future stories or lived experiences of the garden participants. They might have a more positive outlook on life and might only need to participate for recreational purposes instead of need. Sometimes all it takes is a little bit of listening to change the outlook of something.

A duplicate study would be beneficial, but in a different area(s) of the United States, and with specific demographics being sought in the study participants. There are areas in which there are higher amounts of individuals living in poverty or below the poverty line, more distributions of food assistance, and higher instances of need. These areas should be "targeted" or approached for additional studies.

Implications

Future studies relating to community gardening will impact various levels, including individual, family and society. Community gardens are beneficial on all plains, but more implementation of these gardens would be extremely beneficial for those struggling during the pandemic and beyond, and those who reside inside and outside of food deserts. This study heightened the awareness that through local, state, and federal participation, changes can be made in the food deserts. The result of this study suggests that not everyone who participates in a community garden in a food desert is someone of need. The garden and study participants did not even know that their garden was in a food desert. They thought that the distances to the stores were not far and were surprised when the distances were mentioned during their interviews.

The study results suggest that during a pandemic, being outside and having the ability to “interact” with anyone, even from afar, has a positive impact. This could bleed over into numerous paths and studies. Being outside is good for the mental and social health, no matter if it is participating in a garden or not. The study suggested that while there were distinct reasons for participating in the gardens, that there is still research that needs to be done. Social change can occur if more programs were receptive of the ideas of hosting or sponsoring a community garden. If companies or organizations can contribute, then additional resources can be available, and possibly grow the garden based on participants and community participation.

Practical implications for future research and studies in this field proves to be positive and can be valuable to the surrounding communities. By constructing new and additional gardens in these affected areas of food deserts to provide access for individuals in need, children can grow up understanding where fresh fruits/vegetables come from and have access to these. Not all families have the luxury of being able to spend exorbitant amounts of dollars on these items at the grocery store. With inflation being the highest since 1981, things are proving to be difficult for many. Inflation brings risings costs, but if you are on government aid, inflation does not account for an increase in your monthly payments.

Perhaps businesses in the area can “sponsor” a garden being conceptualized, formed, constructed, and implemented. This would show their communities that they are willing to help and change things for the better. Previous studies have proven that if incorporated into everyday meals, fruits and vegetables help prevent childhood and

adulthood obesity. This study suggests that mental and social health is positively impacted during a pandemic by participating in community gardens. Combined social, physical, and mental health positivity can change the outlook on life.

Conclusions

Community gardens are beneficial in many aspects. This study, along with future studies, can provide erected gardens throughout impoverished or low-income areas of the country. The United States is facing a steep incline of inflation, and with inflation comes an increase in prices that will hinder those in these economic areas. Community gardens not only provide mental and social benefits but help to alleviate the stress of individuals having to pay outrageous prices for fresh fruits and/or vegetables in trying times. The participants of this study noted that their participation provided mental and social health benefits for themselves during the COVID-19 pandemic, but also provides the participants with a sense of "community" along with others who participate in the gardens, but that did not participate in this study.

During a time where individuals were quarantined to their homes, escaping to their garden plots provided the participants with a sense of normalcy in a not so normal time. This study provided an insight into why individuals participated in the focus garden which was in a USDA recognized food desert. Most participants were surprised when they found out this fact. This study focused on finding out the lived experiences of these individuals, but what the study did was bring attention circumstances that are often not spoken about, and have recommended that more local, state, or federal attention be brought to these areas.

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Appendix: Study Questionnaire

1. Are you familiar with the term *"food desert?"* Do you have access to fresh fruits and vegetables on a regular basis? (A *food desert* is an area with limited access to affordable and nutritious foods, and an area where a grocery store or bodega or convenient store is not within proximity).
2. Can you describe your initial interactions with the garden, and how the evolved to where you are now?
3. Are you the main person responsible for purchasing groceries in your household? What does a typical shopping trip look like?
4. What is the main reason that you are participating in this garden?
5. What are the types of fruits and vegetables do you like to grow in your garden plot at the garden?
6. How would you describe your gardening experience?
7. To what extent have you participated in gardens before?
8. What is your relationship to anyone here at the garden?
9. How much time do you spend a week at the garden? What is your "ritual" when it comes to coming to tend your garden space?
10. What type of support do you feel that the garden has provided you and your family?

Demographic Questions

1. What gender do you identify as?
   A. Male
   B. Female
   C. _____ (Short Answer Space)
   D. Prefer not to answer.

2. What is your age?
   A. 18 - 30 years old
   B. 31 - 45 years old
   C. 46+
   D. Prefer not to answer

3. Please specify your ethnicity.
   A. Caucasian
   B. African-American
   C. Latino or Hispanic
   D. Asian
   E. Native American
   F. Native Hawaiian or Pacific Islander
   G. Two or More
   H. Other/Unknown
   I. Prefer not to say

4. What is your annual household income?
   A. Less than $25,000
   B. $25,001 - $50,000
   C. $50,001 - $100,000
   D. $100,001 - $200,000
   E. More than $200,001
   F. Prefer not to say

5. What is your current employment status?
   A. Employed Full-Time
   B. Employed Part-Time
   C. Seeking opportunities
   D. Retired
   E. Prefer not to say

6. How many children do you have?
   A. None
   B. 1
   C. 2-4
   D. More than 4
   E. Prefer not to say