OLDER ADULTS AND OPIOIDS

A Thesis

Presented to

the Faculty of the Caudill College of Arts,

Humanities and Social Sciences

Morehead State University

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

---

by

Elba L. Scherer

April 27, 2023

Accepted by the faculty of the Caudill College of Arts, Humanities and Social Sciences, Morehead State University, in partial fulfillment of the requirements for the Master of Arts degree.

_____
Suzanne E. Tallichet, PhD.
Director of Thesis

Master's Committee: _____, Chair
Suzanne E. Tallichet, PhD.

_____
Elizabeth B, Perkins, PhD.

_____
Edward F. Breschel, PhD.

_____
Date

OLDER ADULTS AND OPIOIDS

Elba L. Scherer
Morehead State University, 2023

Director of Thesis: _____
Suzanne E. Tallichet PhD.

Older adults are the largest growing demographic in need of addiction recovery services. Older adults are more likely to be prescribed and misuse opioid medications. Little research examines older adults' behavior and attitudes toward opioid medications and addiction. Current quantitative research focuses on the prevalence of prescriber practices, hospitalizations, and recovery access. The opioid crisis disproportionately impacts older adults, yet prevention efforts often do not include this demographic. Older adults tend to be seen as low risk for addiction. To better serve older adults, understanding their experiences is necessary. This qualitative research study seeks to fill a gap by examining older adults' perceptions, beliefs, and attitudes toward opioid medications.

Research participants were fifty-five years old or older and participated in one-on-one in-depth semi-structured personal interviews via video conferencing and phone calls. Participants were recruited via convenience sampling and included fourteen men and sixteen women. Interviews were analyzed using grounded theory inductive coding to reveal prevailing trends and attitudes.

The study was guided by the question, "What are older adults' experiences, attitudes, and beliefs regarding opioid medications and addiction?" The head researcher utilized symbolic interactionism as the theoretical framework to analyze the data from coding results.

Key findings include strong evidence of a stigma regarding opioid use among the elderly in this geographic area; older adults are open to using mental health services; older adults face structural barriers to accessing mental health services; doctor shopping was a typical behavior among the elderly; older adults expressed frustration and anger over what they perceive to be a lack of communication from medical providers; evidence suggested an association between opioid addiction and elder abuse.

Keywords: Opioids, elderly, seniors, attitude, beliefs, experiences, stigma

Accepted by: _____, Chair
Suzanne E. Tallichet, PhD.

_____
Elizabeth B, Perkins, PhD.

_____
Edward F. Breschel, PhD.

CHAPTER 1 INTRODUCTION

The Opioid Crisis

According to research published by the Centers for Disease Control and Prevention in 2022, there were three waves to the Opioid Overdose Epidemic. The first wave was caused by an increase in prescribing opioids in the 1990s. The second wave of the opioid epidemic began in 2010 with heroin overdoses. The third wave began in 2013 with a rise in deaths linked to illicitly made synthetic opioids, fentanyl in particular. Opioid addiction was named a national health emergency on October 26, 2019, by President Donald Trump (Center for Medicare and Medicaid Services 2022). This issue has reached epidemic proportions and has been highlighted in the media for over a decade.

To understand the scope of the opioid crisis, look at the statistics. According to the Health and Human Services Agency (2023), in 2019, 10.1 million people misused an opioid prescription. Nationally, 70,630 people died from a drug overdose with 48,006 people dying from synthetic opioid abuse. Moreover, 1.6 million people were diagnosed with opioid use disorder in 2019. More people have died from opioid overdose in the United States than in the Vietnam War (Senior Corps 2019). The previously mentioned statistics included all ages. The elderly are at the heart of the opioid crisis. Yet, most prevention and education efforts have been for early prevention in youth, awareness for teens, and connecting adults to recovery services. Regional statistics filtered by age tell a different story about the impact of opioids on the elderly.

Researchers looking at the opioid crisis agree that substance abuse among older Americans is rising. According to the US Census Bureau, 31.5% of the population of the United States was fifty-five years old or older in 2021. Adults fifty-five years old and older are disproportionately represented in opioid overdose-related deaths. According to the National

Safety Council in 2021, adults fifty years old or older accounted for 23% of all drug-related deaths in the United States. According to the California Department of Health in Central California, residents over the age of 55 accounted for over half of all opioid-related overdose deaths in 2017. According to the California Department of Health in 2021, adults fifty-five years old or older comprised 30% of all opioid-overdose-related deaths in Stanislaus County, 0% in Mariposa County, 19% in Merced County, 30% in Madera County, 23% in Fresno County, 30% in Kings County, and 16% in Tulare County. According to the California Department of Public Health, in 2021, of all opioid-related hospitalizations adults fifty-five years old or older comprised 100% of those in Mariposa County, in Fresno County it was 53%, in Kings County 40%, in Tulare County 46%, in Madera County 38%, in Merced County 64%, and 45% in Stanislaus County. There are large variances between counties in this one region of California when compared to the national average.

Senior Corps hosted a national conference on the topic in Chicago on July 17-18, 2019, discussing how opioids created unique challenges for the elderly. Among seniors, opioids can cause cognitive impairment in the elderly, which can mimic dementia. Furthermore, opioids can cause dizziness and affect balance, creating a fall risk for the elderly. One out of three children in the foster care system is placed there due to drug addiction by their parents. Grandparents are becoming the parental guardians of their grandchildren as their adult children are incarcerated or have died of drug addiction resulting in a rise in the number of grand families in the US. The rate of elder abuse is rising with addiction rates as seniors live with adult children with addiction. Seniors face unique challenges as the number of people suffering from opioid addiction rises.

Project Background

The following information is shared, so the reader better understands what inspired this research project and the experience of the primary researcher. I am the primary researcher, Elba Scherer, and I chose this topic for my master's thesis project because it is tied to my work and was supported by my employer, HandsOn Central California (HOCC). This relationship and potential conflict of interest is stated and explained for professional and ethical reasons. My employment was not dependent on this research study. HOCC is a 501c3 nonprofit volunteer engagement agency whose mission is to inspire, equip, and mobilize residents to take action to serve their communities. HOCC provides resources to connect volunteers to volunteer opportunities with government agencies, hospitals, hospices, and other community benefit organizations. In addition, HOCC offers resources that support volunteer engagement, volunteer management, nonprofit sustainability, and capacity building while instigating transformational change through community collaboration and partnerships.

I have been employed by HandsOn Central California (HOCC) for the last six years as the AmeriCorps Seniors Retired Senior Volunteer Program (RSVP) Director. AmeriCorps Seniors RSVP is a federally funded national volunteer service program for individuals at least fifty-five years of age. HOCC sponsors the AmeriCorps Seniors RSVP program for seven counties in Central California with approximately 800 active senior volunteers. I have passed a national criminal history background check. I am a mandated reporter on Elder Abuse and sit on community committees on Elder Abuse, two Opioid Safety Coalition Committees, one senior housing committee, two community health improvement committees, three aging-specific community committees, and one county suicide prevention task force. My job duties include community needs assessments, partnership development, volunteer impact data collection and

analysis, community outreach, volunteer recruitment and training, and working with government agencies and community benefit organization partners.

HandsOn Central California (HOCC) explored how they could address the opioid crisis by utilizing the AmeriCorps Seniors RSVP program and volunteers. HOCC sent me to Columbus, Ohio, in July 2019 to attend Senior Corps Responds: Senior Corps and the Opioid Epidemic, a national conference on the opioid crisis and how other RSVP programs were addressing it. HOCC learned from the discussion that older adults are more likely to be prescribed an opioid and misuse it. Drugs such as opioids can have a more substantial effect on the elderly even when prescribed correctly by weight. Opioids can mimic dementia and other common cognitive issues due to aging which can make addiction harder to diagnose. The elderly face increased fall risk with long-term opioid use. The elderly are the largest growing demographic needing addiction recovery services. Furthermore, elder abuse rates are rising alongside opioid addiction rates. Taking what we had learned at the conference, I began planning our next steps.

I began researching what was already being done in the region to address the opioid crisis after attending the conference. Research revealed that there were two opioid safety coalitions in the area; one was focused on physician prescription practices and policies, while the other was focused on early prevention in youth. No one in the region was addressing opioid use and addiction in the elderly. Education programs for the elderly on opioids effectively removed excess opioid medication from distribution (Senior Corps 2019). I conducted some online research which revealed campaigns such as “Count It, Lock It, Drop It” and “Don’t Rush to Flush”. These campaigns were designed to remove excess opioids from potential circulation by removing them for proper disposal to protect the environment. Their target audience was the

elderly since they are the most likely to be prescribed an opioid. HandsOn Central California (HOCC) decided to develop an opioid education project to teach individuals fifty-five and older about opioid medications. The next logical step was to answer the question, "What should be included in this information? What do they know or don't know? What would they like more information about?"

At this point, I decided that I needed to do some pre-field research. Part of my job duties as the Retired Senior Volunteer Program (RSVP) Director is to attend community outreach events such as senior resource fairs whose goal is connecting seniors to local programs and resources of interest to them such as senior housing, Medicare counseling, victim advocacy groups, elder abuse prevention, and other resources. I attended two elderly resource fairs with approximately 500 attendees, where I used a script to share that I was giving out information on volunteering, opioid medications, and medication drop-off locations. This gave me a way to control the narrative and simply offer them a choice to engage in conversations about opioids while gauging their interest in the topic without leading the conversation. Of the approximately 500 seniors I had contact with, 103 flyers on opioid medications were taken, and 216 flyers on medication disposal locations were taken. I had twenty-three informative conversations with older adults about opioid medications. Observational data showed both fearful and angry responses to opioid medications. There was evidence of a stigma regarding opioid use. After my experiences with pre-field research, I chose to utilize this topic.

Purpose of Research Study

The purpose of this research study was to guide the development of an opioid addiction prevention workshop for adults aged fifty-five or older for HandsOn Central California. HandsOn Central California has identified a need for opioid education for older adults in the

communities they serve, Central California's San Joaquin Valley. The decision to target older adults was made based on several factors. Data for 2018 published by the California Department of Health in 2019 specific to the San Joaquin Valley region has revealed that over 50 deaths reported due to opioid overdose were with the primary age group 55-69 years of age; over 300 emergency room visits were related to opioid use; 184 hospitalizations due to opioid use; the San Joaquin Valley experiences twice the state average in deaths related to opioid pharmaceuticals; and over 1,093,800 prescriptions written for opioids. Opioid addiction abatement efforts in the San Joaquin Valley region focus on early prevention in youth and adult access to recovery programs. However, few organizations address opioid addiction prevention efforts with older adults disproportionately impacted by the opioid crisis. The goal of opioid educational workshops is to reduce the number of seniors dying or being hospitalized by opioid medications.

This chapter introduced the opioid crisis among the elderly, the project's background, and the primary researcher including potential conflicts due to her employment. This necessary research is being undertaken in order to fill a gap in the previous literature and will be used by the researcher in establishing programs for elderly clients. The following chapter will give a snapshot of the body of research currently available on the elderly's use of opioid medications and their attitudes toward opioid addiction and addicts.

CHAPTER 2 LITERATURE REVIEW

Previous research has investigated the prevalence of opioid addiction in older Americans, documenting the rise in addiction rates. A study published by Huhn et al. in 2018 found that between 2004-2013 there was a 41.2% increase in the elderly seeking treatment for opioid use disorder (OUD) and there was a 53.5% increase between 2013-2015. In their 2016 article "Alcohol and Opioid Use Disorder in Older Adults: Neglected and Treatable Illnesses," Le Roux, Tang, and Drexler discuss that substance use disorder is common among the elderly with Alcohol Use Disorder being the most prevalent followed by Opioid Use Disorder. A study conducted by Chhatre et al. in 2017 estimated the number of older adults who will need treatment for substance abuse will be 4.4 million by 2020. Research conducted by the Substance Abuse and Mental Health Services Administration in partnership with the Administration on Aging released a brief in 2012 stating that emergency room visits involving the misuse of prescription medications by older Americans increased by 121% between 2004 and 2008. Older Americans between 50 and 64 who were taking opioids for chronic pain were more likely to misuse prescription opioid medications (Chang 2018). The proportion of older adults admitted to substance abuse treatment programs almost doubled between 2000 and 2012 (Chhatre et al. 2017). As a result, research has been undertaken to look for factors that could lead to substance abuse addiction in older adults.

Researchers have identified several reasons we see substance abuse rates increasing among older Americans. The first factor noted by many researchers was that the Baby Boom generation had joined the ranks of senior citizens expanding numbers for that age demographic (Chang 2018, Chhatre et al. 2017, Dean 2017). Elderly patients are more likely to take multiple medications to treat various chronic health-related issues making drug interaction more likely

(Chang 2018, Dean 2017, Kuerbis 2014). Older adults faced with painful medical conditions try to self-medicate to ease pain resulting in addiction (Grossberg and Taylor 2012). According to Beers et al. (2003, Page 2716), "adverse drug events (ADEs) have been linked to preventable problems in elderly patients such as depression, constipation, falls, immobility, confusion, and hip fractures." Elderly patients do not metabolize medications as quickly as younger patients, so medications adversely affect elderly patients (Dean 2017). However, it should be noted that most analyses were applied to the national population, and regional differences such as those found in my research should be explored. Older Americans are more likely to suffer from mental health disorders such as depression due to the loss of a loved one or a pet, anxiety over changes in lifestyle such as entering a nursing facility or retirement, and social isolation, which increases the likelihood of developing a substance abuse disorder (Grossberg and Taylor 2012, Blazer and Wu 2009, Dean 2017). Cognitive problems that come with old age and the effects of other medications may cause elderly patients to forget when they took them or confuse which medications had been taken, leading to misuse of opioids and the possibility of addiction (Dean 2017, Administration on Aging (AoA) and Substance Abuse and Mental Health Services Administration (SAMHSA) 2012). The elderly who suffer from hearing or vision loss may not understand dosage information correctly which could lead to addiction (Dean 2017).

Another area of research that has generated a lot of interest for researchers is physician practices with elderly patients. Researchers looking at physician practices regarding substance abuse in elderly patients have identified that misdiagnosis has been a contributing cause of rising substance abuse rates since more elderly patients are now being correctly diagnosed (McGrath, Crome, and Crome 2005, Grossberg and Taylor 2012). They state that "within the older population many clinical conditions mimic substance misuse and hence without a high index of

suspicion misdiagnosis is almost inevitable" (McGrath, Crome, and Crome 2005). According to McGrath, Crome, and Crome (2005) doctors should be aware of behavioral changes in their patients that could mimic depression and other age-related mental health issues such as a lack of physical coordination, excessive drowsiness, confusion, aggression, lack of personal hygiene, and sloppy appearance. A research study by De Jong et al. in 2016 found that education on substance abuse in older patients needed to be improved; to include addiction medicine specifically tailored for this generation as they have a higher risk of an adverse drug event and diagnosis can be difficult. Le Roux, Tang, and Drexler (2016) stress the need for medication-assisted treatment for elderly patients.

Researchers looked at what drove doctors' decisions to prescribe opioid medications to patients. Research shows doctors are more likely to prescribe opioid painkillers if an elderly patient is monitored by health professionals, such as a nursing facility or hospice care (Jones 2015). Some research looking at prescriber practices for elderly patients found that addiction was not a criterion in whether or not a doctor chose to prescribe opioids (Jones 2015). A study by Singhal, Tien, and Hsia in 2016 found that physicians were less likely to prescribe opioid pain medication in emergency rooms for indeterminate medical conditions (for example a broken bone versus a pulled muscle) for people of color. Research conducted by Beers et al. in 2003 sought to update the recommended criteria for prescribing medications to the elderly population resulting in what is called the Beers criteria being adopted and used widely by medical organizations and insurance companies. The Beers criteria were updated once more and adopted by the American Geriatric Society in 2019. While this research has been essential to influencing policy on physician training and practices, which has led to significant policy changes, there has

been very little research regarding the perceptions and attitudes of older Americans on substance abuse.

There is little research exploring older adults' opinions, attitudes, beliefs, and behaviors regarding opioid medications, which have been a focus in the media for almost a decade (Haffajee et al. 2019). In 2019, Haffajee et al. used data from the University of Michigan's National Poll on Healthy Aging to analyze older adults' responses to questions about opioid prescribing policy and practices. Haffajee et al. 2019 found that: 26% of respondents did not support prescription restrictions on opioid medications; one-third of respondents had filled an opioid prescription within the last two years, and of those over half reported being prescribed more than needed; 86% of respondents said they would keep opioid medications in anticipation of future need; only 13% of respondents reported disposing of unused medications; 60% of respondents received guidance on how to use their medications and what the side effects might be; and less than half of the respondents reported being counseled on the possibility of addiction and overdose. The survey is based on predetermined questions which leave no room for additional information or dialogue and was a survey designed with limited responses. While the results of this study were notable and enlightening, the survey focused specifically on how they felt about opioid prescribing practices.

There is limited research on the attitudes and behaviors of the elderly regarding substance abuse. A study conducted by Robb et al. 2003 looked at the attitudes of adolescents and the elderly toward mental health. It showed that while elderly patients did not have much experience seeking mental health services, they were open to the idea. Kessler, Agines, and Brown conducted a study in 2014 looking at factors that might influence how the elderly feel about accessing mental health services; they found that gender, income, urban residence, high social

support, and prior experiences with psychotherapy were key factors. The study found that positive associations used for aging and less negative associations for younger therapists produced positive feelings toward accessing mental health services (Kessler, Agines, and Brown 2014). Research conducted by Bobitt et al. in 2019 found that older adults in Colorado who want more information about the use of cannabis were reluctant to discuss it due to the stigma associated with it, and those using medical marijuana reported difficulty accessing it. There is very little research exploring opioid use from the perspective of older adults.

In their article "A Sociology of Empathy and Shared Understandings: Contextualizing Beliefs and Attitudes on Why People Use Opioids" by Ezell et al. 2022, conducted a sociological study of the behaviors, attitudes, and beliefs of people who use drugs and the professionals they come into contact. Ezell et al. (2022) found that professionals who worked in rural areas that came into contact with people who use drugs such as law enforcement, medical personnel, and substance use counselors showed a lack of empathy for those who used drugs resulting in a failure to reinforce good choices which would lead to more positive outcomes for people who use drugs. Ezell et al. (2022) found that rural drug use was a complex tapestry woven from sensory seeking, personal relationships, psychosocial benefits, and pain relief. This study highlighted the sociological factors that characterized rural drug use and perpetuated stereotypes about people who use drugs; however, the average age of participants was 36 years old. There is research on tobacco and alcohol abuse, but again there is a lack of research on the attitudes and perceptions of older adults on addiction to these substances.

In sum, research conducted on opioid use among the elderly has been primarily quantitative studies looking at death rates, hospital admission rates, and new patients accessing substance abuse counseling. There has also been research looking into what risk factors might be

involved in elderly opioid use disorder. Studies have been undertaken to try to understand what factors might differentiate urban from rural drug use, but very little of that research has focused on the elderly population or focused on understanding their perspective and experiences. Thus, the foregoing review of available literature on the topic has exposed a gap in our knowledge. The next section will discuss the theoretical framework for this study, subjective interactionism, and why it was chosen to structure this research.

Theoretical Framework

Symbolic Interactionism is a sociological theoretical perspective that seeks to understand how society is reproduced and held together through how individual social interactions are interpreted or understood by what is communicated through words, symbols, and personal experiences. This section of the chapter will focus on the work and theories of George Herbert *Mead's Mind, Self, and Society; the Definitive Edition* (2015). I have chosen this theory because this research is all about understanding how the elderly perceive opioid medications, how opioid medications impact their behavior and their feelings about opioid use. Using Mead's theory will allow us to interpret this social group's symbols and behavior that may be unique to their age group. In addition, this theory will enable us to analyze and recognize trends and patterns of behavior across the group. Finally, it will allow us to theorize what social messages and interactions produced the attitudes and behaviors that emerged from the data.

Herbert Blumer was a student of George Herbert Mead, who published his work, *Mind, Self, and Society*, after his death in 1934. Herbert Blumer is responsible for the name "symbolic interactionism". Mead believed that we understand reality based on our experiences and beliefs. An example of this would be water: to a fireman, water is a tool used to put out a fire; to a gardener, it is necessary to make things grow; to a chemist, it is a chemical formula, H20. Mead

believed that the language and words people used were symbols they applied meaning to, their understanding or interpretation of the world, and that words could be used to inspire or as weapons. Mead believed that language separates humans from animals and allows us to be self-aware.

Mead called society a "negotiated order" that developed out of the social development of the mind and self. Mead believed that humans had to create a 'mind' and that it was developed through socialization. Humans were not born with certain beliefs. They were learned (nurture, not nature). Mead stated that the mind is bombarded with stimuli and is selective about what it focuses on, including our choice of language and its associated meaning. "It is the process of sifting through the barrage we are under to form unique definitions of the situation." Mead stated, "Our reality is always in the process of becoming…." Mead believed that our reality is based on personal experiences. As we acquire new experiences, our symbols, the meanings we attach to them, and our understanding of them adapt and change. Mead felt that language sets man apart from other animals and allows man to be self-aware; "Out of language emerges the field of the mind." Language is what gives humans the ability to be reflexive or self-aware.

Mead stated that humans form a 'mind' through interactions with others and our sense of 'self'. Mead theorized that to develop a 'self,' we first had to create an understanding of what I will call the generalized other. The generalized other is a term to describe all those we interact with. Mead said this was done in stages. In the first stage, humans develop a definition for the generalized other. This happens as an infant when we understand that parents and caretakers outside ourselves are taking care of our needs. We develop an understanding that we exist outside of those we interact with, and we have our own actions. During the second stage in the development of 'self', typically around two years of age, humans imitate the actions of others

they have been around, typically parents and family. During the third stage of development of 'self,' at three to four years of age, humans develop play acting or role-playing. This is where the child is both the object and the subject of the role play. They are aware of the role they are playing with language. Mead called the final stage the development of 'self,' the "game stage", typically occurring at five years of age. To be a player, you must know the other players' roles. You must learn your role and the role of others to play the game (soccer for example). Finally, the self becomes a pivot point for the individual and society.

Mead stated that this crucial understanding allows for the development of the 'I' and 'me,' which together compose the behaviors of the 'self". The 'I' is the unscripted, spontaneous, uncontrolled, and unpredictable part of the 'self.' Sometimes we only see the 'I' after we act. An example of this behavior would be you might not use profane language usually, but in a spontaneous angry outburst, you use it without thinking about it first. The 'me" is the expected, controlled, scripted, judgment, predictable, and thoughtful part of the 'self." Mead felt that is how society controls us. We can only develop the 'me' once we have learned the "generalized other." Mead felt that the 'I' was the source of social change and that the 'me' was the source of society and social cohesion, creating social stability.

Mead felt that society was created by a set of responses that became the 'me.' Taken together, each "me" represents our collective response that creates society. This collective 'me' shapes us via the generalized other, thus reproducing society. Different cultures emerge as groups of each of the collective "me" definitions and understanding of shared symbols and language vary. For example, people in the United States living in large cities such as New York have a very different culture from an isolated indigenous group living off the land in South America. Part of the socialization process includes the environment and shared experiences.

Mead's theory helps us understand why so many cultures have developed instead of humanity sharing one culture. Mead believed that a utopian society was possible but would require a "universal discourse" where humanity shared the same language and had the same understanding of language and symbols. Mead used this to develop his "theory of the social act."

According to Mead, there are four steps to a social act. The first step is the "impulse," the need to do something. For example, you are hungry. The next step is "perception," which is the training on how to respond. We recognize and interpret the presence of other people, how they will react to our choices and the consequences of our actions. Using the example of being hungry, we know we want to eat, but we know that we should not consume our roommate's food. Instead, we should go out and get our own. The next step is "manipulation," where conscious action is taken. Using our example, we chose to go to Taco Bell and grab food instead of stealing our roommate's food because we knew it would make them angry. The next step is completion, simply that we have completed our social activities.

Mead used the idea of a "conversation of gestures" to develop this idea further. You can have a conversation with gestures because it is a social interaction that can be interpreted and reacted to. Using a dogfight as an example, you have two dogs. One is snarling and lunging towards the other, and that one responds by backing away with its tail tucked between its legs. The two dogs understand the body language of each other, which makes it a social interaction but not a social act. Using significant symbols alone is not enough to develop the mind because dogs lack language and reflexivity. Dogs don't have that higher reasoning power to think about their choices and weigh the consequences of their actions. They react. They are not able to complete the perception stage of a social act. Understanding the 'social act' and the steps involved allows us to break down behavior and examine where it might come from.

In sum, the first part of the chapter gave you an overview of the current research on opioids and how they impact the elderly. For those interested in the topic and seeking more available research on the topic, please see Appendix Item 2. The information given highlighted the gaps in current research and the need for more qualitative research. The lack of research on opioid use from the experiences and perspective of the elderly was discussed. The second part of the chapter discussed the work of George Herbert Mead and his theories of how society is created. The chapter explained Mead's subjective interactionism and how this framework will be used to interpret the data collected. Using Mead's theories will let us explore the language used in one-on-one personal interviews to identify shared beliefs, behaviors, and patterns. Once we understand the interviewees' meanings, we can discuss why they share them. It will help us look for the social processes that led to those behaviors and definitions. The following chapter will discuss the research methodology, and how the research was conducted.

CHAPTER 3 METHODOLOGY

This study examined how being older impacts the societal experiences individuals have had with opioids. This qualitative study sought to answer the question "What about older adults?" What is their relationship to opioid medicines? What are their beliefs, attitudes, and perceptions about opioid medications? These fundamental questions guided the collection of data to be analyzed.

Recruitment Protocols

A mix of convenience and purposive sampling were used. Study participants must be of a certain age (55 years old or older) and reside in a specific geographic location (reside in the San Joaquin Valley). Convenience sampling of this demographic was necessary due to the Covid-19 pandemic. Study participants were recruited utilizing social media, flyers, and email distribution through professional networks. As the primary researcher, I had access to spaces where seniors congregate. I am a part of the professional network serving seniors in this region. I was concerned about utilizing professional networks due to the possibility of damage to professional relationships or that gatekeepers would feel unduly pressured to participate in the recruitment process. I carefully sought participants outside my professional network to avoid bias or skewed results. I was worried that seniors who knew me in a professional capacity would edit their responses based on what they thought I would want to hear or not be as candid during interviews. COVID and the need to work outside existing partnerships slowed down the recruitment process.

Seniors can be hard to recruit because they are considered an at-risk population and must be handled appropriately. I share the following information to establish my credentials for working with seniors. As the primary researcher, I have passed a national criminal history check by Live Scan, Truscreen, and Field Print, and this information is on file with my employer. I am

a mandated reporter of Elder Abuse and work with volunteers fifty-five years old and older. I have mandated reporter training and have a current certificate on file at HandsOn Central California. I have over five years of experience professionally working with older adults. This experience was very beneficial during this research. Additionally, I received the approval of Morehead State University's Institutional Review Board for Human Subjects on December 2, 2019 in order to conduct this research.

Some seniors may present signs of early-onset dementia or Alzheimer's disease that is not yet diagnosed. Therefore, seniors require special handling over informed consent to be sure their understanding is achieved. There were multiple steps used to achieve informed consent. All study participants were prescreened to ensure they met the age (55+ years old), and geographic location criteria (reside within Tulare, Kings, Fresno, Madera, Mariposa, Merced, or Stanislaus county), and passed a cognitive assessment. Interviews were recorded using video interface technology such as Zoom or Facetime. Informed consent included assessments to ascertain that the senior can give consent to be interviewed. Cognitive assessment protocols used under education permission was the Standardized English Mini-Cog cognitive development tool by Soo Borson (2019). The interviewer gave each participant a list of questions verbally and asked them to draw a clock face. Participants were then asked if they remembered the three words and to show their clock drawing to the camera. Participants were scored using the criteria in the Mini-Cog developed by Soo Borson, participants who passed the Mini-Cog assessment were invited to participate in the study.

Informed consent began when participants contacted the researcher, indicating they wanted to participate. During the initial phone call, the researcher reviewed the informed consent document with the potential participant. If they still wanted to participate, then the researcher

administered a cognitive test. If the cognitive test results indicated that the participant could give consent, then the researcher scheduled a time and date for the interview. Before beginning the interview, the researcher asked the participant if they could record the conversation. Only when consent was given did the researcher review the informed consent document once more before asking them to give the verbal agreement and statement of understanding informed consent.

All study participants gave verbal consent, which was documented on an informed consent form after undergoing an initial interview to verify that they met the requirements needed for the study. All study participants were at least fifty-five years old, passed a quick mini-cognitive assessment, were prescreened where informed consent information was provided, and consent form information was reviewed before verbal consent was documented. Due to the Covid-19 pandemic and the virtual nature of contact required, physical signatures were impossible. All research participants were volunteers who had the right to withdraw from the study at any time. All participants had the right to decline to answer a research question. Participants were told what the research would be used for and who was conducting the investigation. Research participants were not given any form of compensation or incentive for participating in this study.

Research Methods

Qualitative methods were chosen for this study due to a need for exploratory research on this topic. Most of the research available on opioid addiction in older adults was quantitative research looking at statistical data such as opioid-related hospital admissions or survey-driven data such as the National Poll on Healthy Aging. With scarce previous research identified on this specific area of interest, information is best collected freely without structure to find the basis to begin building an informed understanding to grow future research. Quantitative methods could

create biased results in this case because the investigation would start with preconceived ideas of what older adults' perceptions, attitudes, and beliefs are based on assumptions. The qualitative research methods used in this study were individual participant semi-structured interviews, which were recorded and transcribed into a word processing program. The methodological framework chosen for this research project was the iteration of the grounded theory developed by Charmaz and Belgrave (2012).

The first step in grounded theory is to develop a question to research. This study will look at the experiences of older adults with opioid medications. The second step in grounded theory is data acquisition. Thirty individuals were interviewed about their experiences with opioid medications. The data were collected through one-on-one semi-structured interpersonal interviews utilizing video conferencing technology and were recorded. For a list of the questions used in the semi-structured one-on-one interviews, please see Appendix: Item 1. The final data set was scrubbed of any information that might identify a participant, and names were altered in transcribed data to protect the confidentiality and anonymity of participants. The final transcripts were in a Microsoft Office document format and stored in a secured container.

The first wave of coding was done to find concepts from the interviews. The second coding wave compared the concepts, leading to categories that concepts fit into. The third wave of coding looked for any additional or new categories. When no more categories emerged from the data, concept saturation was reached. The analysis revealed prevailing trends and patterns from the qualitative data, which developed theories based on the data gathered. The final step in grounded theory was modeling, where the coding and analysis develop a theoretical model to explain the researcher's findings. Grounded theory analysis is a synthesis of the data collected

and the knowledge and experiences of the researcher doing the analysis (Charmaz and Belgrave 2012).

This chapter reviewed the methodology used in the research design. It explained how the methodology would lead to results and why those methods were chosen. It explained in detail how the data were collected. The following chapter will discuss what the researcher discovered.

CHAPTER 4 DATA ANALYSIS

Study Participants and Demographics

Fresno County was chosen for the study as the most populated county in the San Joaquin Valley. According to the US Census Bureau, in 2020 12.3% of residents were over the age of 65. The racial and ethnic population demographics of Fresno County in 2020 were 53.5% Hispanic/Latino, 29% white, 11% Asian, and 5.8% African American, with the remainder of residents composed of smaller minority groups such as Native Americans, Filipino, and Native Pacific Islander (US Census Bureau 2020). Fresno County is home to several refugee groups, such as Hmong, Laotian, Cambodian, Syrian, and Armenian. Every effort was made to include all racial/ethnic demographics, but translation into all languages was not available for practical reasons. Due to the Covid-19 Pandemic, compromises had to be made, and the individuals who were going to help with translations were no longer available.

The study scheduled semi-structured interviews with thirty individual participants. Demographic information was collected from study participants. Interviewees were asked demographic questions at the beginning of the interview to break the ice and give them a little time to get comfortable with being asked questions before moving into the questions developed to guide the conversation. A summary chart depicting respondents' age and sex can be found in the Appendix: Table 1. The participants' other demographics reflect those of the region and their race and ethnicity. Fourteen men and sixteen women were interviewed for this study. Three individuals self-identified as members of the LGBTQ community. There were nine research participants between the ages of 55 and 60, twelve between the ages of 61 and 65, five between the ages of 66 and 70, two between the ages of 71 and 80, and two that were over the age of 81. Please see Table 2 for a visual representation of age dispersion in the study population.

Regarding race and ethnicity, there were twelve white, nine Hispanic/Latinos, four black, two Asian, one indigenous person, one Pacific Islander, and one who identified as bi-racial, as shown in Table 3.

Thirteen participants worked full-time, nine worked part-time, and eight retired. Please see Table 4 for a visual representation of employment status among research participants. The educational attainment levels of research participants were: one who had not received a high school diploma, five that had high school diplomas, five that had some college education, twelve that had bachelor's degrees, four who had graduate degrees, and three that had a vocational, trade, or professional certification or license. Please see Table 5 for a visual representation of educational status. Table 6 is a graphic representation of respondents' marital status: nine were single, ten were married, five were widowed, and six were divorced. Finally, study participants were asked to provide their county of residence. There were fifteen in Fresno County, two in Madera County, four in Tulare County, two in Kings County, one in Merced County, two in Mariposa County, and four in Stanislaus County. Please see Table 6 for a visual representation of the county of residence for study participants.

Coding Waves

The first coding wave of each transcript began looking for words indicating behaviors and emotions. The second coding wave looked for words or statements meaning medications, friends or family, mental health, and doctors. The third coding wave categorized concepts into physical health, mental health, relationships, and barriers. The third wave looked for intersectionality between the data and trends and patterns in the data. The final step was reviewing the findings and interpreting what was discovered.

Behaviors

Behaviors associated with elderly experiences with opioid medications included doctor shopping, freely discussing medications and doctors with one another, and holding on to unused medication. Respondents revealed it is common to be asked by friends what doctor they are seeing and if that doctor is prescribing pain medication. I was first introduced to the "Doctor Shopping" concept at the AmeriCorps Seniors Conference in Chicago in 2019. Doctor shopping is where an individual will seek information about doctors prescribing the medications they are seeking, intending to seek out that doctor for service. One respondent said, "I have friends who go from doctor to doctor trying to get them to prescribe opioids. I don't want to do that. I don't want to be like that." Statements such as this revealed this practice is commonplace among this age group. Another respondent said, "My friends and I discuss what is working for us during our lunch visits. I plan to ask my doctor about tramadol because it worked well for my friend." Statements referring to discussions about medications were common among the respondents. When asked if respondents knew how to dispose of unused medications, many of them disclosed that they wanted to hang onto previous medications in case they ran out. One respondent said, "I have run out in the past because my doctor has upped my dose. I like to hang on to it in case that happens again." Another respondent said, "Medication is expensive! I already paid for it. Why would I dispose of it when I can use it." These behaviors were the most common behaviors revealed during the coding process.

Emotions, Thoughts, and Stigma

All of the respondents felt the need to justify medication use even if they were not taking opioid medication. They all were quick to offer freely-given statements such as: "The only time I have used prescription pain medications was after surgery." or "I have diabetes and back

problems that cause me pain." and "I know I have been given medications like morphine when I have been in the hospital, but I don't take them often." These statements are strong indicators that they are expecting a negative response to admitting to opioid use. A strong stigma may also explain the strong statements of fear found as a trend from respondents. Respondents made statements such as: "I don't want to take them because I don't want to get addicted." or "I don't want to become an addict." and "I worry if I take them, I will become addicted." Sixty percent of respondents made statements like these voicing a fear of addiction. Many interviewees were uncomfortable with the question when asked if they use an opioid. The tone of voice would shift, and answers would get shorter. All these things combined are quite possibly strong indicators of stigma.

Data analysis revealed plenty of conflicting emotions and thoughts regarding opioid medications among the elderly. All respondents saw a need for addiction recovery programs. Then they were asked how they felt about opioid addicts. Half of the respondents were sympathetic to addicts; revealed with statements such as "I feel sorry for them. I think there are a lot of seniors who get addicted and don't know it." The other half of respondents felt addicts needed a tough love approach with statements like "You have to stand your ground with addicts. They steal to pay for their habit." or "You have to tell them no and take a hard line with them." This is evidence of a negative stereotype of drug addicts, which is more evidence of a strong stigma regarding opioid addicts.

Opioid addicts were often described by interviewees as individuals who preyed on society and their families to feed their addiction. Respondents viewed opioid addicts as unkempt and dirty. A common trend among interviewees was a fear of becoming addicted. When following up on why they feared becoming addicted, respondents revealed that they didn't want

to be homeless or hurt their families. This reveals another shared negative image of what an opioid addict looks and behaves like. Another common response was a belief that recovering from opioid addiction is impossible and that addiction is a death sentence. Symbolic interactionism tells us that these dangerous and negative messages could be reinforced among the elderly population in this region.

Although respondents had a poor view of opioid addicts, most of them (three-quarters) were surprisingly open to accessing mental health services. These study respondents had a positive view of mental health services and said they found value in them. While they had a positive view of mental health services, it is clear from the interviews that I conducted that the respondents were frustrated and angry with doctors for a variety of reasons. Respondents expressed stress, frustration, and anger. Some voices rose in volume, emphasizing their displeasure. They experienced pain and felt like their doctor was dismissive and obstruction to receiving relief. Almost three-quarters of respondents said their doctors didn't listen to or address their concerns. One respondent said, "I am angry at the doctors because they just prescribe medications without explaining anything." Another respondent replied, "I know my doctor has never talked to me about the possibility of addiction." Respondents were asked if their doctors had discussed alternative pain management therapies. Some of the more passionate responses included: "My doctor's answer to everything is to hand me a prescription." Two-thirds of respondents said they felt rushed by doctors. Statements such as this were common: "My doctor rushes me through an appointment and doesn't explain anything." While respondents expressed a positive view of mental health services, they clearly stated that they feel unheard by their medical providers.

Doctors didn't discuss treatment options with them such as alternative pain treatments. Many respondents felt their doctors ignored their requests for more information on their medical treatment. Some interviewees were angry because the doctor prescribed an opioid when they didn't want one. Some respondents revealed that doctors didn't discuss the possibility of addiction with them. Preeti et al. (2022) found that older adults are more likely to use alternatives if their doctor discusses lifestyle choices. Medical providers are under pressure to see more patients in less time which often leads to rushed appointments. This creates friction, miscommunication, or missed communication between doctors and their older adult patients.

Older adults are open and willing to use mental health services but have indicated barriers to accessing those services. They also indicated they would be more comfortable with providers or programs tailored to meet their needs. Suggestions shared by respondents were accessible office interiors, staff members that speak slowly and clearly, and staff trained to support elderly patients. For example, one respondent who used a walker remarked that just because you can get a walker through the door and the office has a ramp doesn't make the office interior easy to navigate. They also pointed out that a lack of seating in offices can be an issue for them because they can't stand for an extended period. Another respondent said that office staff often speak so fast that they struggle to understand what they are saying. Concerns issued by a few respondents were that they would be misunderstood by a professional who didn't have experience dealing with their age group.

Patterns and Trends

Of the 30 respondents, 18 were taking prescription pain medication. Of that 18, 13 didn't know they were taking an opioid which means that of the respondents taking a prescription, almost three-quarters didn't know they were taking an opioid narcotic. Respondents were asked

if their doctor had discussed the potential side effects of their medications with them or discussed the possibility of addiction with them. My findings are consistent with the study done by Haffajee et al. in 2019. Sixty percent of respondents indicated that their pharmacist or doctor did not counsel them on the possibility of addiction or side effects from using an opioid. Conversations with interviewees revealed trends in mental health services as well.

Almost two-thirds of all the respondents indicated they did not know how to access mental health services. Structural barriers identified by respondents included transportation, cost of services, a lack of services in their area, and their insurance doesn't cover mental health services. In addition, 25% of the respondents said they would feel more comfortable accessing mental health services if they knew the services provided were set up with older adults in mind.

Forty percent of the respondents indicated that they had used alternative pain management therapies such as chiropractic treatment and therapeutic massage. Sixty percent of respondents were open to alternative pain management therapies. Again, respondents indicated that potential barriers to accessing alternative pain management therapies were transportation, cost of services, a lack of services in their area, and that treatments were not covered by their insurance. Preeti et al.'s research in 2022 showed in a sample of 2,277 older adults that sixty-six percent of older adults had tried an integrated medication strategy that included alternative pain management treatments due to a health concern, and ninety-one percent had found them beneficial. Preeti et al.'s research in 2022 confirms that alternative pain management therapies might be a potential solution to reducing the number of opioids prescribed to elderly patients.

One interview supported information shared at the Senior Corps conference in 2019 that stated elder abuse is rising due to opioid addiction. The respondent was living with an adult child acting as their caretaker. The respondent clearly suffered from elder abuse by neglect due to the

caregiver being addicted. This was just one case found among this sample. Nevertheless, the interview supports the finding that elder abuse cases can be linked to opioid addiction. Mitigating factors should also be considered before assuming an association between the two, such as the small sample size and increasing multigenerational households becoming more commonplace. For every case of elder abuse that gets reported, several go unreported, which makes establishing prevalence difficult.

Summary

The elderly in the sample freely discussed doctors and medications, and doctor shopping is commonplace. There is a strong stigma associated with opioid use among the elderly. There is a great deal of fear and confusion over opioid use. The elderly in the sample were angry and frustrated with their medical providers and felt their concerns are not addressed. Many of the elderly were not aware they were taking opioid medication. The elderly in the study were open to mental health services, but have barriers to access. While openly sympathetic and supportive of accessing mental health services, they were divided over feelings regarding opioid addiction and addicts. Opioid addicts were mostly viewed negatively and either blamed for their condition or pitied. The elderly respondents were open to alternative pain management therapies; some had sought out these services independently. They have faced barriers to accessing alternative pain management therapies and mental health services. There is a possible association between cases of elder abuse and opioid addiction.

CHAPTER 5 DISCUSSION

When we look at these findings through the lens of symbolic interactionism, these behaviors, emotions, and patterns reflect the shared experiences of the members of this sample in this geographic location. While this study did not use a large enough sample to generalize these findings to the population of American seniors taking opioid medication, it does add weight to the findings that these seniors reflect what may be happening among them and may possibly be widespread among them in this geographical location.

Applying Symbolic Interactionism to this research, we are looking for the meanings of the language and other symbols regarding opioid medications used by the elderly population. I am seeking their definitions and understanding of this language and symbols. The interviews revealed an intense fear of opioid addiction among the elderly. The fear was so strong among many that they felt one pill was enough to cause addiction, and they avoided opioids where they could. There was evidence that they thought addiction was a choice, not a disease, and that addicts were seen as socially undesirable. The need they all felt to justify what medications they were taking indicates that they don't want to be seen as an addict or as misusing their medications. The anger and frustration expressed by the elderly regarding medical providers were represented in every interview. The prevalence of this response means that whatever factors are causing them to feel this way are long-term and systemic. These results should be followed up with additional research. Future research should examine the messages being shared in media and educational materials on opioids looking for hidden messages that might be reinforcing or perpetuating misinformation and negative stereotypes.

The shared experiences, fears, frustration, and anger expressed by the elderly in these interviews suggest the need for research into ageism within the healthcare system. Judy Graham

documents in her 2021 article in the Kaiser Health News, "'They Treat Me Like I'm Old and Stupid': Seniors Decry Health Providers' Age Bias" stories of ageism in the healthcare system both implicit and explicit. Ageism can lead to inadequate or inappropriate care (Graham 2021). Future research should look into ageism in the healthcare industry as a possible source of some of the frustration, anger, and fear expressed by the elderly in this study. Future research should be conducted to find out if doctors are missing key steps in communicating with their older patients or are older patients missing communication because of the fast pace of the doctor's office. Future research might look further into the relationships and experiences of older adults accessing public spaces and services

Older adult opioid education projects should focus on teaching older adults a variety of important information. The first thing they should teach them is how to talk to their doctor. Providing the elderly with tools to help them better communicate with their medical providers will help facilitate better communication between medical providers and their elderly patients. Educating elderly patients on simple things like taking a list of questions and concerns with them to their doctor appointments will ensure that all their concerns are addressed. Doctors will appreciate the list as they can address their concerns in an efficient manner. They should be taught how to store their medication. By simply locking up their medications they control who has access to them. This could prevent possible tragedies and addiction among younger family members. They should be taught about alternative pain management therapies and how to discuss them with their doctor. This could remove excess opioids from circulation and provide potential pain relief without opioid medications. They should be taught how to dispose of unused medications responsibly. They are more likely to dispose of medications if they know the appropriate procedures and where to take them. This would again remove excess opioids from

circulation. They should be taught how to spot addiction behaviors. This would allow them to self-evaluate if they might have an addiction problem or identify an addiction issue with those close to them. They should be taught where and how to seek help if they feel they are addicted. Arming the elderly with this information allows them to not only access services for themselves but share this information with those who may need it. The elderly should be taught how to identify elder abuse and how to report it. Older adults can advocate for each other and often will more readily listen to a peer rather than someone in another age group.

Older adults learning to advocate for themselves empowers them to take control of their own healthcare decisions. This will enable them to make informed decisions and give them the tools they need to feel heard by medical professionals. Education programs can open dialogue with other family members on sensitive and hard-to-talk-about topics such as elder abuse or intergenerational conversations about opioids. Encouraging older adults to count their opioid pills will help them know they are using the medication correctly and if any go missing. If they lock their medications up, they will not become an accidental drug dealer. Educating the elderly about properly disposing of their medications is better for the environment than throwing them in the garbage or flushing them down the toilet. The older adults interviewed for this project expressed fear and concern about the possibility of opioid addiction among their families and friends. Educating them about the warning signs and how to open a conversation with a loved one about addiction issues will alleviate their anxiety and create an advocate for recovery services.

Research conducted by Preeti et al. in 2022 found that two out of three adults between the ages of fifty and eighty were already using alternative pain management options as part of an integrated strategy to cope with a medical issue. I believe that older adults are open to alternative

pain management therapies but lack the knowledge of what those therapies might be and how to access them. Research should be done to see how we can bridge this gap and eliminate barriers to access. Options that might help bridge the knowledge gap would be nonprofit community outreach programs through senior services. We can train medical providers to offer these options and discuss their benefits with patients. Insurance companies could offer access to these services as part of their coverage on medical plans. Policymakers could help find funding solutions to help cover cost and transportation issues. In addition, unused prescribed opioid medications remain the most common source for misuse by diversion to family and friends (Haffajee et al. 2019). To reduce the number of unused opioids in circulation, we need to reduce the number of prescriptions written and provide alternatives to older adults that work for them. Alternative pain management therapies could help with this. In addition, if seniors had other effective ways to manage their chronic pain, it is likely that they would be more willing to dispose of unused prescription pain medications.

Doctor shopping was a common practice revealed through interviews with older adults. This leads to me asking why doctor shopping is prevalent among this age group. Is doctor shopping a symptom of older adults addicted to opioids or a sign that older adults are having trouble accessing opioid medications? Future research should look further into this practice to see why this practice is occurring. While interviewees mentioned the practice, none revealed to me that they engaged in this behavior. In addition, research by Haffajee et al. 2019 found that eighty-six percent of older adults keep unused medication instead of disposing of it, thinking they will need it again in the future even if a convenient disposal method was available. Future research should investigate the nuances of this behavior. Is it because they fear access to the

medication will be blocked? Do they fear the cost will be too high if they need it again in the future?

Policymakers and researchers should look at the structural barriers found by this study to find solutions. Transportation barriers can be solved through volunteer transportation programs, senior transportation initiatives, and telehealth options. The cost of mental health services was the most common barrier stated by respondents. Policymakers might be able to help by implementing changes to policies for insurance companies or expanding Medicare to offer more mental health benefits. Research needs to be conducted on educating older adults on how to access mental health services or simplify access to services. Telehealth services might be the answer to services not available in their area. However, telehealth services can only do so much. For example, can telehealth be adapted to offer medicated assisted recovery? Change doesn't happen without awareness and a push to do the work. Future research should be done on how to tailor mental health services to make them easier to access and more appealing to older adults.

During these interviews, there was a situation that came to light that I would like to propose as an additional avenue of research. A respondent was living with an older adult child who provided support services such as cleaning and cooking. Their adult child began to take their pain medication and stopped cleaning, which created a dangerous situation for the senior who used a walker. They didn't want to turn their child in to authorities. They didn't have the resources to move. They didn't have anywhere to go and felt trapped and ashamed that they were in the situation. This was a clear case of elder abuse by neglect. Research should look at elder abuse and its ties to opioid addiction. Researchers should also look at resources available for older adults in crisis, especially housing.

Policymakers often overlook the needs of older adults. Research exploring the experiences of the elderly is a rich field of opportunities. While quantitative research has its place, qualitative data is richer for exploring and understanding the experience of those being studied. Other avenues of research sparked by the conversations and interviews with these older adults are: What are the experiences of seniors accessing public places? What are the experiences of seniors accessing public services and programs? What are the nuances between age groups among the elderly? Researchers should ask: what about the experiences of the elderly?

As explained earlier, this research project was undertaken to help decide how a volunteer program for older adults could help with the opioid crisis in the communities the program served. The program was implemented as the researcher was working on writing up their thesis for submission. Volunteers help with community outreach by distributing information during community events and engaging older adults in conversations about opioids. They support hour-long workshops for older adults to educate them about opioids. Seniors were also educated about fentanyl poisoning which is how the opioid crisis has shifted which is primarily impacting youth, teens, and young adults. In the last year, senior volunteers with this program have educated over 250 seniors in one-hour workshops. They have passed out over 3,934 educational outreach documents utilizing the Count It, Lock It, and Drop It information, Substance Abuse and Mental Health Services Agency hotline information, and documents tailored to help seniors talk to their doctors about their medications. They have distributed over 3,877 Narcan Units and 25,770 Fentanyl Test Kits and removed 666.6 pounds of medications and 577 pounds of sharps from circulation. Seniors are important to our society and their lives matter.

REFERENCES

Administration on Aging (AoA) and Substance Abuse and Mental Health Services Administration (SAMHSA). (2012). “Medication Misuse and Abuse Among Older Adults”. Older Americans Behavioral Health Technical Assistance Center. Retrieved from https://acl.gov/sites/default/files/programs/2016-11/Issue%20Brief%205%20Prescription%20Med%20Misuse%20Abuse.pdf.

American Geriatric Society.2019. “For Older People, Medications Are Common; Updated AGS Beers Criteria® Aims to Make Sure They're Appropriate, Too.” American Geriatric Society, AmericanGeriatrics.org, 31 Jan. 2019, https://www.americangeriatrics.org/media-center/news/older-people-medications-are-common-updated-ags-beers-criteriar-aims-make-sure.

Beers, Mark, James Cooper, Donna Fick, Ross Maclean, William Wade, and Jennifer Waller. 2003. “Updating the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults: Results of a US Consensus Panel of Experts”. *Archives of Internal Medicine, 163(22)*, 2716–2724. https://doi-org.msu.idm.oclc.org/10.1001/archinte.163.22.2716

Blazer, D. G., & Li-Tzy Wu. 2009. Nonprescription Use of Pain Relievers by Middle-Aged and Elderly Community-Living Adults: National Survey on Drug Use and Health. Journal of the American Geriatrics Society, 57(7), 1252–1257. https://doi-org.msu.idm.oclc.org/10.1111/j.1532-5415.2009.02306.x

Bobitt, Julie, Sara Qualls, Melissa Schuchman, Robert Wickersham, Hillary Lum, Kanika Arora, Gary Milavetz, Brian Kaskie. 2019. “Qualitative Analysis of Cannabis Use Among Older Adults in Colorado”. *Drugs & Aging, 36(7)*, 655–666. https://doi-org.msu.idm.oclc.org/10.1007/s40266-019-00665-w

Borson, Soo. 2019.Mini-Cog. Retrieved 12/11/2019 (https://mini-cog.com/).

California Department of Public Health. 2019. California Opioid Overdose Surveillance Dashboard. Accessed on August 29, 2019 at https://discovery.cdph.ca.gov/CDIC/ODdash/.

Cameron, Kathleen, Lauren Popham, and Stacy Stanford. 2020. "The Impact of the Opioid Epidemic on Older Adults: Findings from a National Survey of Community-Based Organizations ." *National Council on Aging, 13 Feb. 2020*, retrieved online 27 March 2023 https://www.ncoa.org/article/opioid-crisis-and-the-aging-community.

Center for Disease Control and Prevention (CDC). 2022. "Understanding the Opioid Overdose Epidemic". Found online 03/28/2022, https://www.cdc.gov/opioids/basics/epidemic.html.

Center for Drug Evaluation and Research. 2019. "As You Age: You and Your Medicines." U.S. Food and Drug Administration, 19 Feb. 2019, https://www.fda.gov/drugs/information-consumers-and-patients-drugs/you-age-you-and-your-medicines#:~:text=As%20you%20get%20older%2C%20body,it%20stays%20in%20your%20body.

Chang, Yu-Ping. (2018). "Factors associated with prescription opioid misuse in adults aged 50 or older". *Science Direct: Nursing Outlook 66 (2018)* 112-120.

Charmaz, K., & Belgrave, L. (2012). Qualitative interviewing and grounded theory analysis. The SAGE handbook of interview research: The complexity of the craft, 2, 347-365 .

Chhatre, Sumedha, Ratna Cook, Ravishankar Jayadevappa, and Eshita Mallik. (2017). "Trends in substance use admissions among older adults". BMC Health Services Research,

Article number: 584 (2017), 1–8. https://doi-org.msu.idm.oclc.org/10.1186/s12913-017-2538-z

De Jong, Cornelius, Christine Goodair, Ilana Crome, Darius Jokubonis, Nady El-Guebaly, Geert Dom, Art Schellekens. Barbara Broers. Emilis Subata. Garbielle Welle-Strand. Lonneke Luycks. Michael Walters. Tamara Schoof. 2016. "Substance Misuse Education for Physicians: Why Older People are Important". *The Yale Journal of Biology and Medicine, 89(1),* 97–103. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4797843/.

Dean, O. (2017). Prescription Drug Abuse among Older Adults. Insight on the issues AARP: August 1, 2017. AARP Policy Institute. Retrieved from https://www.aarp.org/ppi/info-2017/prescription-drug-abuse-among-older-adults.html.

Graham, Judith. 2021. "'They Treat Me like I'm Old and Stupid': Seniors Decry Health Providers' Age Bias." *Kaiser Health News,* Kaiser Health News, 2 Nov. 2021, https://khn.org/news/article/ageism-health-care-seniors-decry-bias-inappropriate-treatment/.

Grossberg, G. T. & Taylor, M. H. (2012). The growing problem of illicit substance abuse in the elderly: a review. The primary care companion for CNS disorders, 14(4), PCC.11r01320. doi:10.4088/PCC.11r01320

Jones, Brian. 2015. "Opioids and Older Adults: A Article Review". *Indian Journal of Gerontology, 29(2),* 245–253. Retrieved from http://search.ebscohost.com.msu.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=102032291.

Haffajee, Rebecca L., Calista Harbaugh, Preeti Malani, and Jennifer Waljee. 2019. "Older Adults' Perceptions of Opioid-Related Policies and What They Mean for Pain Treatment", Health Affairs Blog, April 17, 2019. DOI: 10.1377/hblog20190415.123669. [Accessed 17 August 2022].

Health and Human Services Agency. 2023. "Opioid Facts and Statistics" Found online 04/05/203 https://www.hhs.gov/opioids/statistics/index.html

Herzig, Shoshana, Timothy Anderson, Yoojin Jung, Long Ngo, Ellen McCarthy. 2021. "Risk factors for opioid-related adverse drug events among older adults after hospital discharge". *Journal of American Geriatrics Society. 2022 Jan;70(1):*228-234. doi: 10.1111/jgs.17453. Epub 2021 Sep 15. PMID: 34528242.

Huhn, Andrew, Eric Strain, D. Andrew Tompkins, and Kelly Dunn. 2018. "A Hidden Aspect of the U.S. Opioid Crisis: Rise in First-time Treatment Admissions for Older Adults with Opioid Use Disorder". *Drug Alcohol Depend. 2018. December 01; 193*:142-147. Doi:10.1016/j.drugalcdep.2018.10.002.

Kessler, Eva-Marie, Sabrina Agines, and Catherine Bowen. 2014. "Attitudes towards seeking mental health services among older adults: personal and contextual correlates". *Aging and Mental Health Volume 19, 2015, Issue 2*: 182-191. Accessed online https://www-tandfonline-com.msu.idm.oclc.org/doi/full/10.1080/13607863.2014.920300?src=recsys

Kuerbis, A., Sacco, P., Blazer, D. G., & Moore, A. A. (2014). Substance abuse among older adults. Clinics in geriatric medicine, 30(3), 629–654. doi:10.1016/j.cger.2014.04.008. Accessed online August 29, 2019 at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146436/.

Le Roux, Christoffel, Yilang Tang, and Karen Drexler. 2016. “Alcohol and Opioid Use Disorder in Older Adults: Neglected and Treatable Illnesses.” *Current Psychiatry Reports. 3 August 2016:* 18:87

McGrath, Adrian, P. Crome, I. B. Crome. 2005. “Substance misuse in the older population”. *Postgraduate Medical Journal, 81(954),* 228–231. https://doi-org.msu.idm.oclc.org/10.1136/pgmj.2004.023028

Mead, George Herbert. 2015. *Mind, Self, and Society: The Definitive Edition*. University of Chicago Press, 2015.

National Safety Council-Injury Facts. 2023. “Drug Overdoses”. National Safety Council, Found online Mar. 2023, https://injuryfacts.nsc.org/home-and-community/safety-topics/drugoverdoses/.

Preeti, Malani, Ober Allen, Julie, Erica Solway, Mathias Kirch, Dianne Singer, Jeffrey Kullgren. 2022 “Experiences of Everyday Ageism and the Health of Older US Adults”. University of Michigan National Poll on Healthy Aging. JAMA Network Open. 2022;5(6):e2217240. doi:10.1001/jamanetworkopen.2022.17240. [Accessed 17 August 2022].

Preeti, Malani, Jeffrey Kullgren, Erica Solway, Rachael Maciasz, Dianne Singer, Emily Smith, and Matthias Kirch. 2022. “Use of and Interest in Integrative Medicine Strategies”. University of Michigan National Poll on Healthy Aging. July/August 2022. Available at: https://dx.doi.org/10.7302/4879. [Accessed 17 August 2022].

Robb, C., M. Becker, H. Chwa, W. Haley, and L. Polivka. 2003. "Similarities and differences in attitudes towards mental health care in younger and older adults". *Aging & Mental Health, 7(2),* 142-152. https://doi-org.msu.idm.oclc.org/10.1080/1360786031000072321

Senior Corps. 2019. Senior Corps Responds: Senior Corps & the Opioid Epidemic Conference July 17-18, 2019, Chicago, Ohio.

Shoff C, Yang TC, Shaw BA. 2021. "Trends in Opioid Use Disorder Among Older Adults: Analyzing Medicare Data, 2013-2018". *American Journal Preventive Medicine. 2021 Jun;60(6):*850-855. doi: 10.1016/j.amepre.2021.01.010. Epub 2021 Mar 31. PMID: 33812694; PMCID: PMC8154702.

Singhal, Astha, Yu-Yu Tien, and Renee Hsia. 2016. "Racial-Ethnic Disparities in Opioid Prescriptions at Emergency Department Visits for Conditions Commonly Associated with Prescription Drug Abuse". PLOS ONE, 11(8), 1–14. https://doi-org.msu.idm.oclc.org/10.1371/journal.pone.0159224

Terrell, Kevin, Siu Hui, Peter Castelluccio, Kurt Kroenke, Roland McGrath, Douglas Miller. 2010. "Analgesic Prescribing for Patients Who Are Discharged from an Emergency Department". *Pain Medicine, Volume 11, Issue 7, July 2010,* Pages 1072–1077, https://doi.org/10.1111/j.1526-4637.2010.00884.x

US Census Bureau. (2020). US Census Bureau Quick Facts Fresno County, California. Accessed online June 3, 2022. https://www.census.gov/quickfacts/fresnocountycalifornia

US Census Bureau. 2022. "The Older Population in the United States: 2021." Census.gov, United States Census Bureau, 17 Oct. 2022, https://www.census.gov/data/tables/2021/demo/age-and-sex/2021-older-population.html.

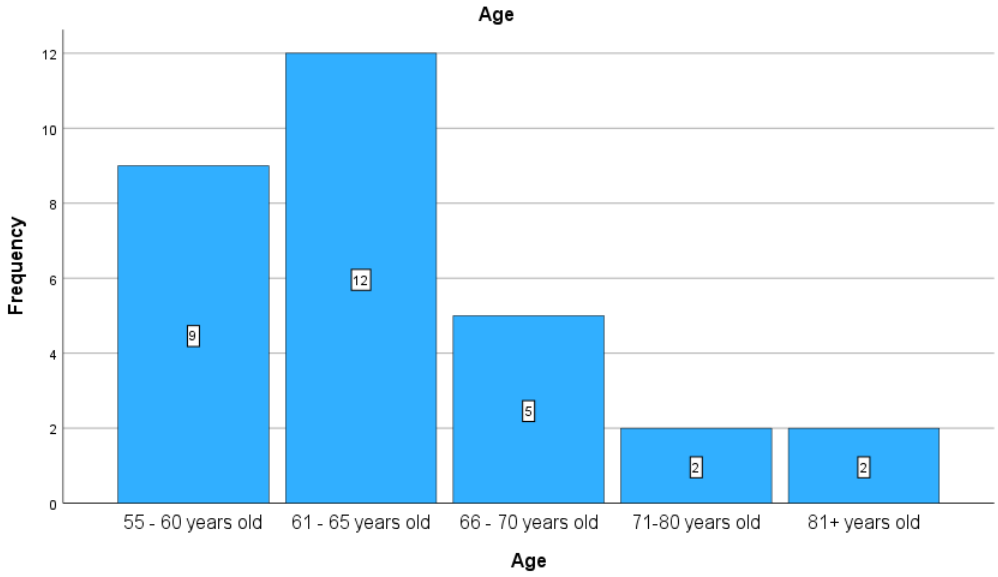
Whitehouse.gov. (2019). Ending America's Opioid Crisis. Accessed online August 29, 2019 at https://www.whitehouse.gov/opioids/

Table 1. Age

This table is a graphic representation of the age dispersion in study participants.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	55 - 60 years old	9	30.0	30.0	30.0
	61 - 65 years old	12	40.0	40.0	70.0
	66 - 70 years old	5	16.7	16.7	86.7
	71-80 years old	2	6.7	6.7	93.3
	81+ years old	2	6.7	6.7	100.0
	Total	30	100.0	100.0	



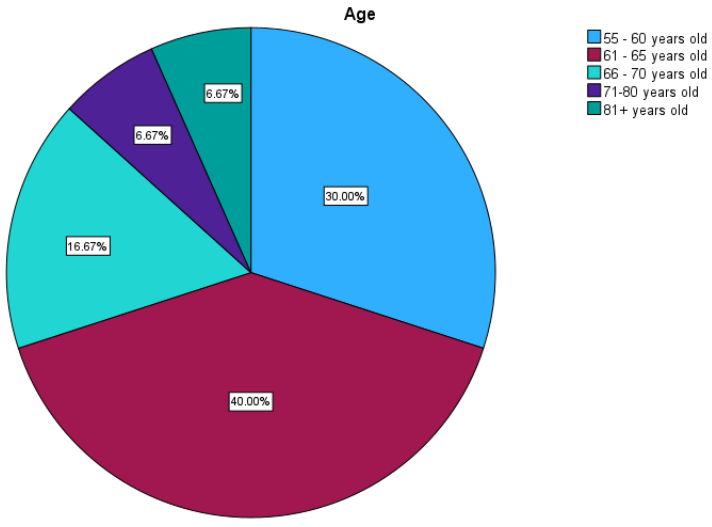


Table 2. Age and Sex

This is a summary table of respondents' age and sex.

Age * Sex Crosstabulation

Count

		Sex		
		Male	Female	Total
Age	55 - 60 years old	4	5	9
	61 - 65 years old	6	6	12
	66 - 70 years old	1	4	5
	71-80 years old	2	0	2
	81+ years old	1	1	2
Total		14	16	30

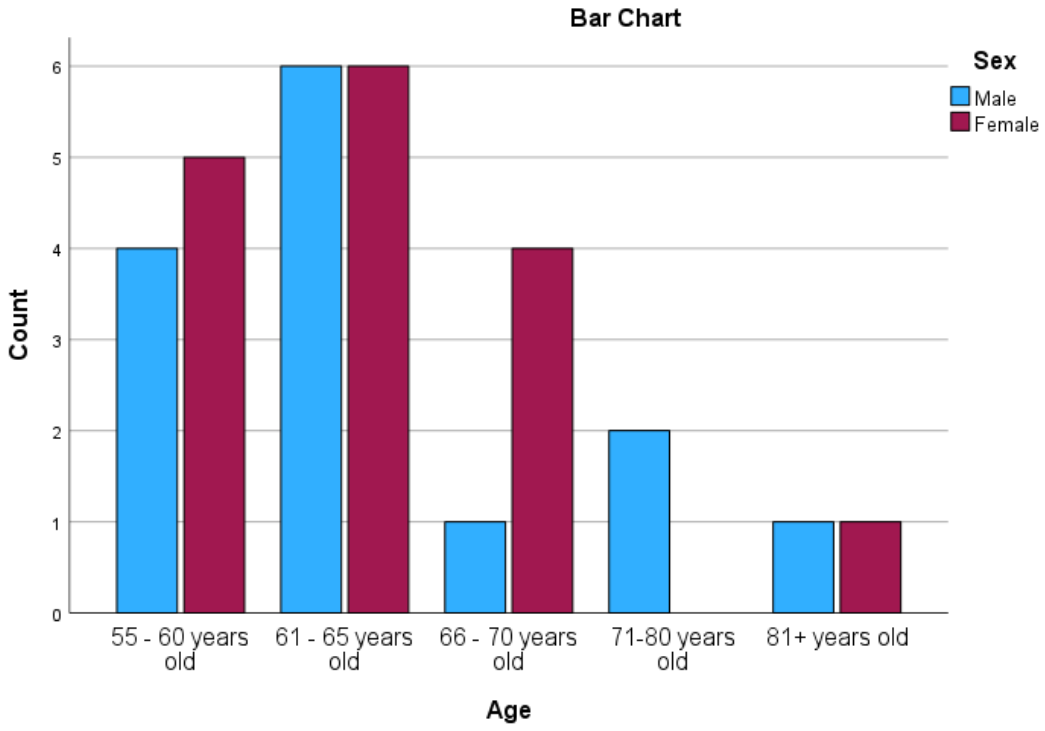


Table 3. Race/Ethnicity

This graph is a visual representation of the racial/ethnic diversity of the study participants.

Race/Ethnicity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White	12	40.0	40.0	40.0
	Hispanic/Latino	9	30.0	30.0	70.0
	Black	4	13.3	13.3	83.3
	Asian	2	6.7	6.7	90.0
	Pacific Islander	1	3.3	3.3	93.3
	Indigenous	1	3.3	3.3	96.7
	Bi-racial	1	3.3	3.3	100.0
	Total	30	100.0	100.0	

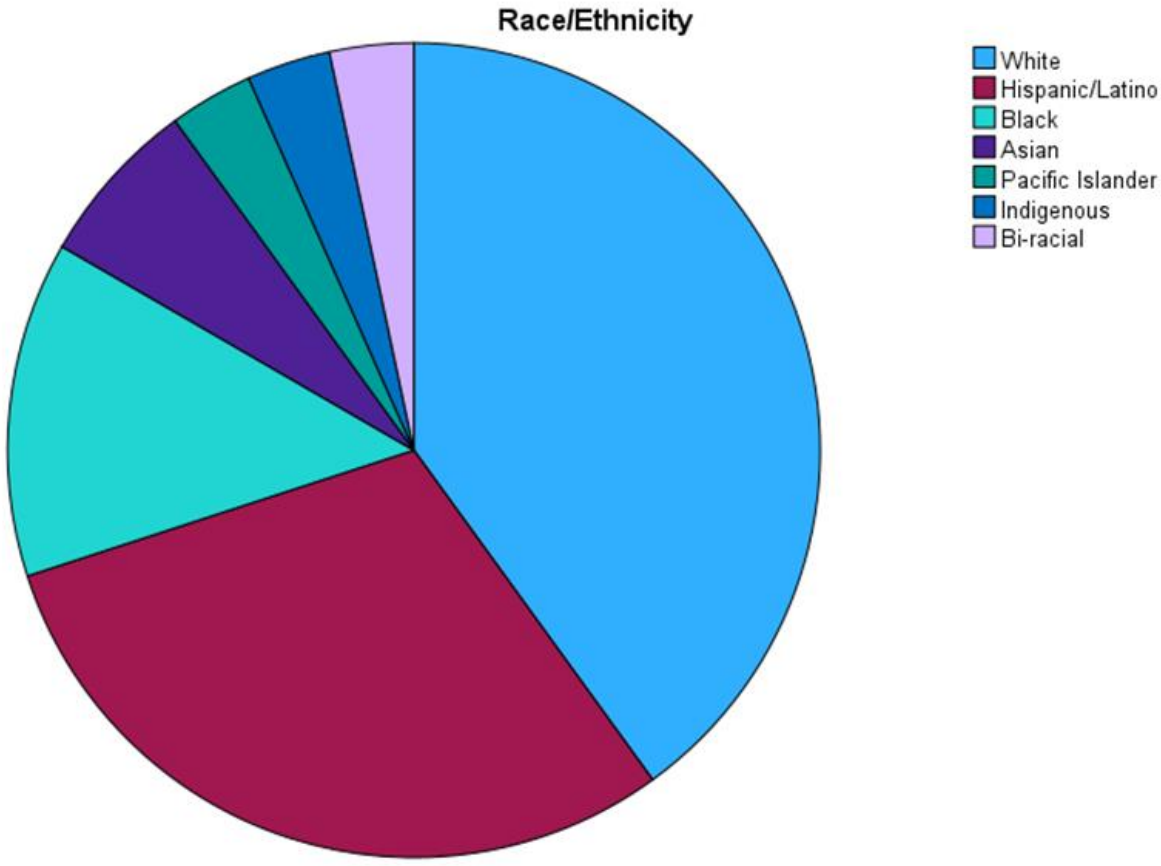
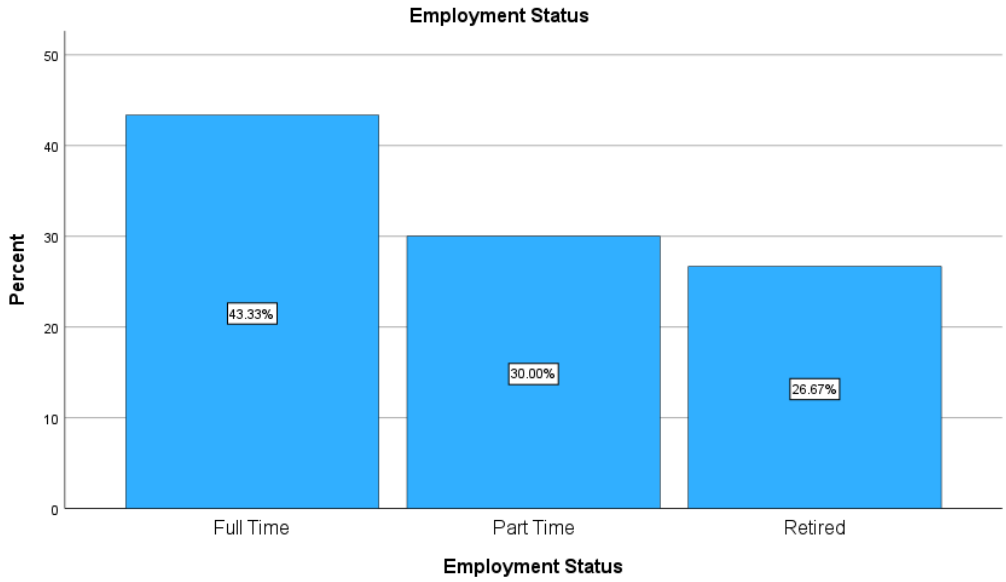


Table 4 Employment Status

This is a visual representation of the study participants' employment status.

Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Full Time	13	41.9	43.3	43.3
	Part Time	9	29.0	30.0	73.3
	Retired	8	25.8	26.7	100.0
	Total	30	96.8	100.0	
Missing	System	1	3.2		
Total		31	100.0		



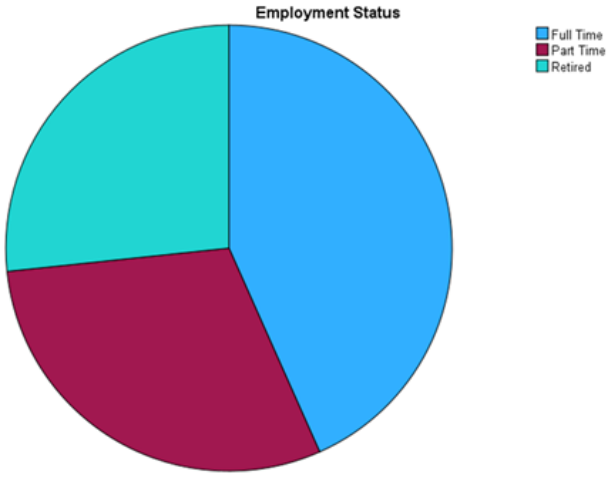


Table 5 Education

This table is a visual representation of participants' educational attainment.

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than high school	1	3.3	3.3	3.3
	High school diploma	5	16.7	16.7	20.0
	Some college	5	16.7	16.7	36.7
	Bachelors degree	12	40.0	40.0	76.7
	Graduate Degree	4	13.3	13.3	90.0
	Vocational/Professional Certification	3	10.0	10.0	100.0
	Total	30	100.0	100.0	

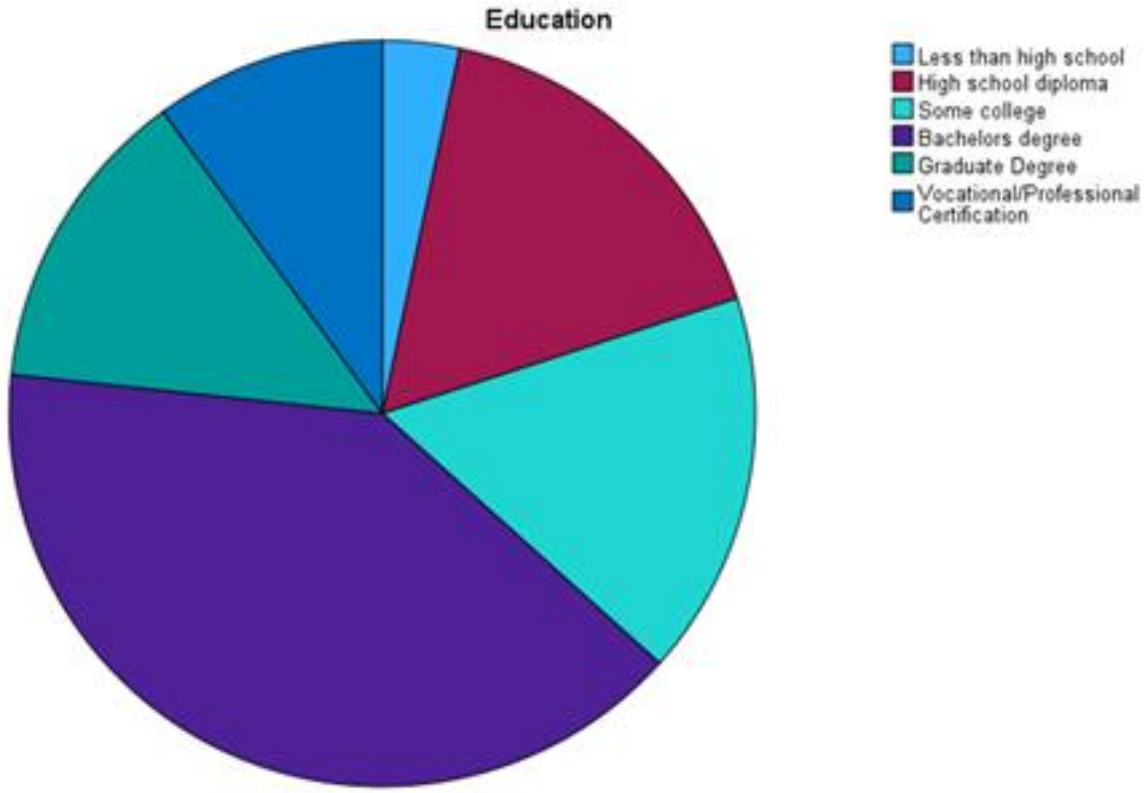


Table 6 Martial Status

This is a visual representation of respondents' marital status.

Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	9	30.0	30.0	30.0
	Married	10	33.3	33.3	63.3
	Widowed	5	16.7	16.7	80.0
	Divorced	6	20.0	20.0	100.0
	Total	30	100.0	100.0	

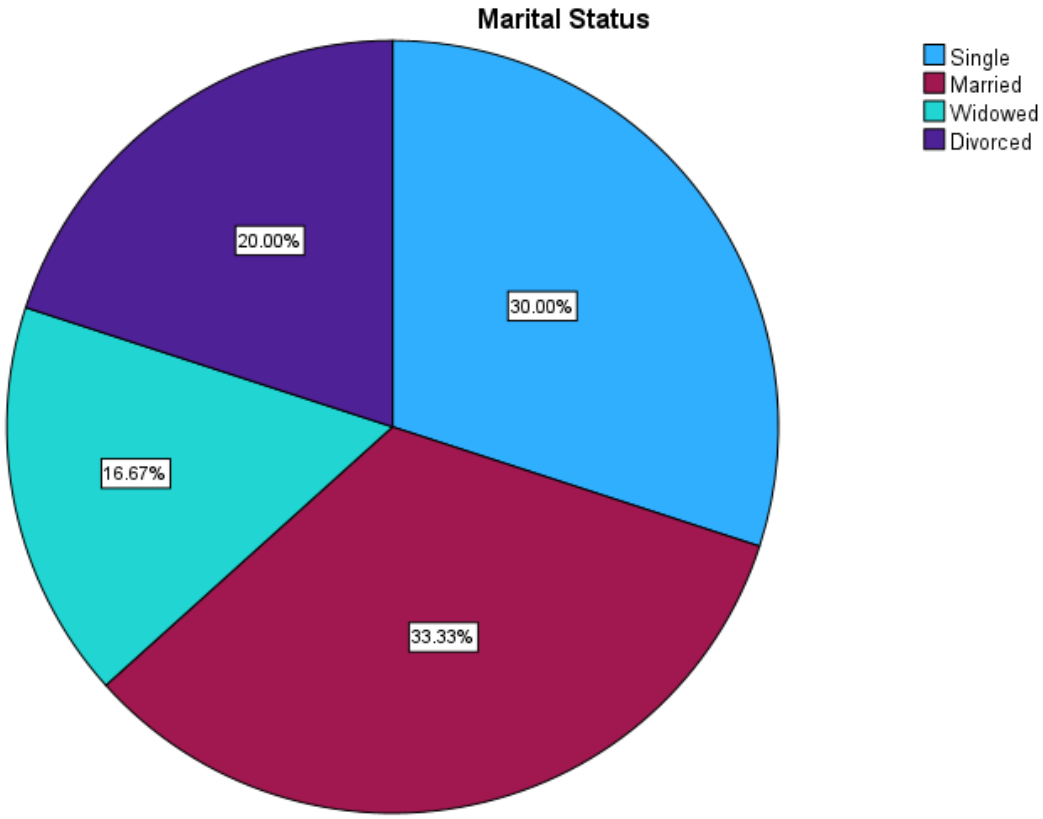
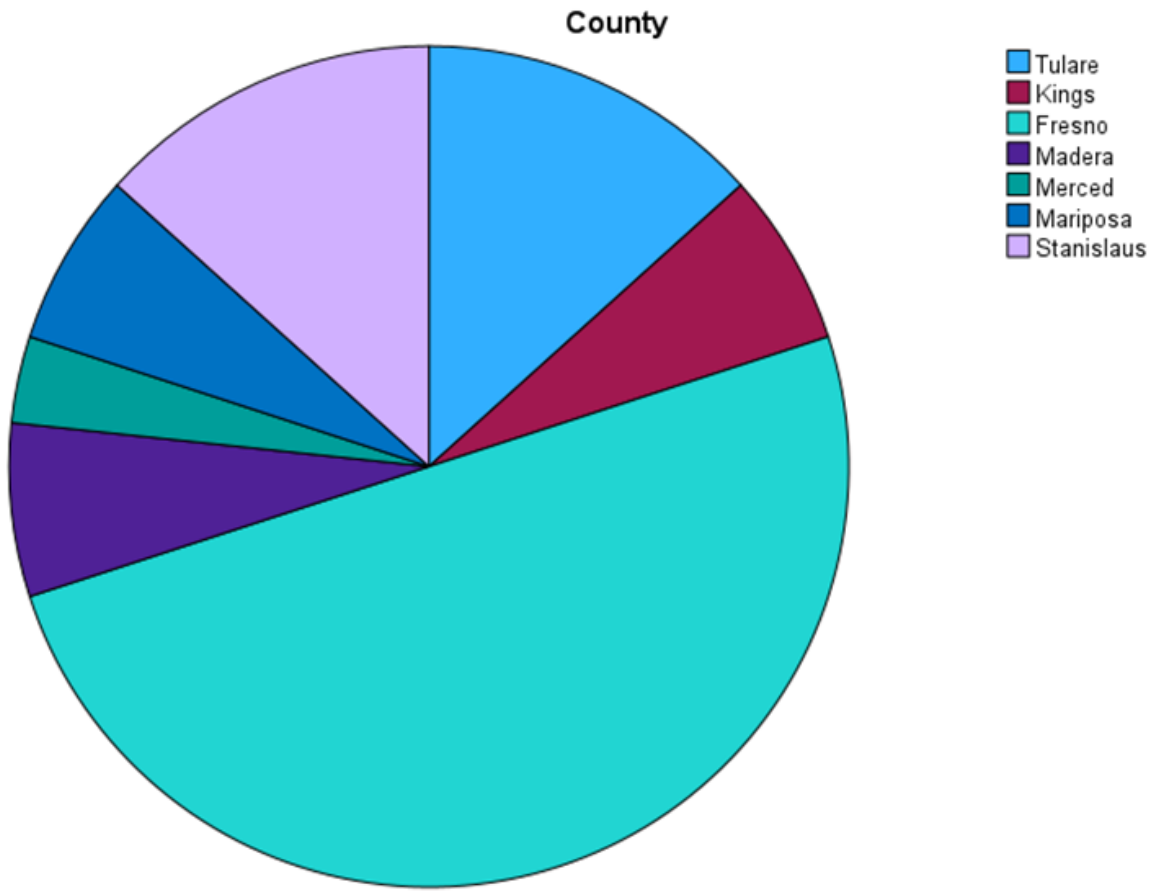


Table 7 County of Residence

This table is a graphic representation of county of residence for respondents.

County

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Tulare	4	13.3	13.3	13.3
	Kings	2	6.7	6.7	20.0
	Fresno	15	50.0	50.0	70.0
	Madera	2	6.7	6.7	76.7
	Merced	1	3.3	3.3	80.0
	Mariposa	2	6.7	6.7	86.7
	Stanislaus	4	13.3	13.3	100.0
	Total	30	100.0	100.0	



Appendix Item 1

Semi-structured Qualitative Interview Questions

Research Statement: This qualitative research study seeks to identify older adults' perceptions, beliefs, and attitudes toward opioid medications.

1) Can you share what you know about opioid medications?
a. How do you know that?
b. Where did you hear that?
c. Who told you that?
d. Tell me more about your experience with that.

2) Can you share how opioid medications have affected your life?
a. Tell me how it ….?
b. Is the impact ongoing? Are you still …?
c. Has it impacted others in your life? Who?
d. Why is this important to you?

3) How do you feel about opioid medications?
a. Can you share why you feel this way?
b. Tell me more about….

4) How do you feel about individuals who seek out mental health services?
a. Why do you feel that way?
b. Have you or would you seek mental health services?
c. To clarify you feel that…?

5) Can you share what you know about opioid addiction?
a. Can you elaborate on ….
b. How do you know…?
c. To clarify you think…?

6) How do you feel about opioid addicts?
a. Can you share why you feel this way?
b. Can you elaborate on …?
c. Tell me more about…?

7) How do you feel about addiction recovery programs?
a. Can you share why you feel this way?
b. Tell me more about…?
c. What do you think should happen?

8) What do you know about disposing of unused medications?
a. Can you clarify that…?
b. Can you explain that to me?

9) What information on opioids would you like to know more about?
a. Can you clarify…?
b. Can you share more about….?

10) What information do you think is important to share with seniors about opioids?
a. Can you elaborate on that?
b. Give me an example of …?
c. What would that look like?

11) Tell me why you chose to participate in this research study on opioid medications?
a. Can you share more about that experience?
b. Tell me more about that…?

Appendix Item 2

Additional Resource Material

Adams, Taite. (2015). Senior Addiction Drug Addiction in Older Adults, Senior Alcoholism, and Recovery Solutions. So. Pasadena, Florida: Taite Adams.

Center for Medicare and Medicaid Services. 2022. “Ongoing Emergencies.” CMS.GOV,

Carter, Mary , PhD, Bo Kyum Yang, PhD, RN, Marsha Davenport, MD, MPH, Allison Kabel, PhD, Increasing Rates of Opioid Misuse Among Older Adults Visiting Emergency Departments, Innovation in Aging, Volume 3, Issue 1, January 2019, igz002, https://doi.org/10.1093/geroni/igz002

Center for Medicare and Medicaid Services, 26 Oct. 2022, https://www.cms.gov/about-cms/agency-information/emergency/epro/current-emergencies/ongoing-emergencies.

Goffman, Erving. 2009. Stigma: Notes on the Management of Spoiled Identity. Touchstone, Reissue edition (November 19, 2009) ed., Simon & Schuster, New York, London, Toronto.

Johnson-Arbor, Kelly. 2023. “What Is Fentanyl?” What Is Fentanyl? | Poison Control, National Capitol Poison Center, https://www.poison.org/articles/what-is-fentanyl?psafe_param=1&gclid=CjwKCAjwoIqhBhAGEiwArXT7K1wy_9tCWNyNX55K3wLKR1Sh2JVauNk1wCrGxzwhmKei1NcOeziToRoCTfUQAvD_BwE.

Leveille, John. 2020. Sociological Theory: From the Classical to the Contemporary (Second Edition). Blue Faucet Press. Pennsylvania.

Lofland, John; Snow, David; Anderson, Leon; and Lofland, Lyn (2005). Analyzing Social Settings: A Guide to Qualitative Observation and Analysis. Edition Four. Thomson/Wadsworth.

Mattson, M., Lipari, R.N., Hays, C. and Van Horn, S.L. (2017). A day in the life of older adults: Substance use facts. The CBHSQ Report: March 11, 2017. Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration, Rockville, MD. Retrieved from https://www.samhsa.gov/data/sites/default/files/report_2792/ShortReport-2792.pdf.

Ruiz S., Skowronski S., and Tilly J. (2017). "The Opioid Public Health Emergency and Older Adults". Administration for Community Living issue brief. Retrieved from https://theconsumervoice.org/uploads/files/general/ACL_Issue_Brief_-_Opioid_Abuse_and_Older_Adults_-_Dec2017.pdf.

US National Library of Medicine. (2019). Opioid Addiction. Accessed online August 29, 2019 at https://ghr.nlm.nih.gov/condition/opioid-addiction