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The Development of a Training Curriculum for Opioid Treatment Providers in Georgia about Older Adults in Medication Assisted Treatment: A Special Studies Project

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The Development of a Training Curriculum for Opioid Treatment Providers in Georgia about Older Adults in Medication Assisted Treatment:

A Special Studies Project

By: Jessica Biser

Bachelor of Arts

College of Saint Benedict

2014

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An abstract of
A thesis submitted to the Faculty of the
Rollins School of Public Health of Emory University
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Abstract

The Development of a Training Curriculum for Opioid Treatment Providers in Georgia about Older Adults in Medication Assisted Treatment: A Special Studies Project

By: Jessica Biser

Background: The number of older adults with opioid use disorders is increasing at an alarming rate. The most common and successful treatment for opioid use disorders is the use of methadone or buprenorphine in medication assisted treatment. Because of the high rate of older adults with opioid use disorders, the aging population in treatment is growing. However, opioid treatment providers receive little to no training on how to manage the complex needs of older adults in treatment.

Purpose: The purpose of this study is to create and implement a training curriculum to educate opioid treatment providers on aging-related considerations for older adults in medication assisted treatment programs.

Methods: A needs assessment involving in-depth interviews was conducted to find out what the current gaps in training are surrounding the care for older adults. Four topics were identified using thematic analysis for the content of the curriculum. The curriculum was granted 2.5 continuing education credits by the Opioid Treatment Providers of Georgia, and was pilot tested and evaluated using pre/post-tests and satisfaction surveys.

Results: The final curriculum consisted of two modules, each 50 minutes long. The first module was a general overview of aging and local resources providers can refer patients to. The second module discussed grief and an overview of advance care planning. Many providers did very well on the pre-tests, so it was difficult to determine the level of knowledge gained from the modules. The evaluations were used to gauge overall satisfaction of the training which was overwhelmingly positive.

Discussion: There is minimal research about how older adults age in medication assisted treatment and what specialized needs they may need after long-term opioid use. This curriculum is one step towards improving the understanding of older adults and what additional needs they may face in medication assisted treatment for opioid use. This curriculum should be used in trainings across Georgia to improve the care for the aging population in medication assisted treatment.

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Next, I would like to thank the director of Opioid Treatment Providers of Georgia for supporting this project and advocating for education related to older adults in medication assisted treatment. I appreciate your encouragement from the start of this project to create this curriculum.

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Introduction

Background and Rationale

The opioid epidemic has become an increasing problem in the United States over the last two decades. More than 130 people die every day from opioid overdoses (Department of Health and Human Services, 2019). High rates of opioid use disorders, or opioid abuse, began in the 1990s when pharmaceutical companies asserted that the painkillers were not addictive and doctors started to write prescriptions freely (National Institute on Drug Abuse, 2019). Prescription opioids are used primarily for pain management and by 2016, over 289 million prescriptions were written for opioids each year (Department of Health and Human Services, 2019). With incessant over-prescribing by physicians, it didn't take long for opioids to be heavily circulated in the general population and for users to become addicted and dependent on the drug. According to the U.S. Department Health and Human Services, in 2017 over 47 thousand people died from opioid overdose and 36% of those involved prescription opioids. These numbers are almost three times higher than opioid overdoses in 2002 (National Institute on Drug Abuse, 2019). With tighter restrictions and rising costs in healthcare, some users are turning to heroin as a cheaper alternative to feed their addiction, adding another layer of complication to the epidemic.

Note that not all people with opioid use disorders started their addiction with prescription drugs. Over half of the opioid overdose deaths were not related to prescription opioids; opioids also include illicit drugs like heroin and synthetic steroids (National Institute on Drug Abuse, 2018). An opioid use disorder (OUD) is characterized by a continued and excessive use of opioids that leads to impairment or distress (American Psychiatric Association, 2013). Having an OUD can significantly alter someone's life because the addiction drives users to focus all their

attention on attaining and using opioids instead of focusing on other important aspects of their lives. In 2017, 2.1 million people had an opioid use disorder and another 2 million misused opioids for the first time (Department of Health and Human Services, 2019). Opioid use disorders have been rising progressively since the 90s, but it wasn't until the 2000's that the government began to respond, and until 2017 that President Trump declared it a 'public health emergency'.

Medication assisted treatment (MAT) has become the gold standard treatment to manage opioid use disorders in the United States. MAT uses approved medications to treat OUDs in combination with counseling and behavioral therapy. The treatment program dispenses an opioid agonist, such as methadone or buprenorphine, that works to block the euphoric effects of opioids while also eliminating harmful side effects from the drug (SAMHSA, 2015b). Opioid agonists are drugs that act like opioids and bind to the same receptors, but in the case of methadone, don't cause the same addictive effects (National Institute on Drug Abuse, 2018). The goal of MAT is to reduce or completely eliminate illicit use of opioids, but the program is designed around a mission of harm reduction instead of complete detoxification so some patients will need to stay on methadone indefinitely to maintain the successful outcomes.

Since individuals have been staying in MAT for long periods of time, the mean age of patients in MAT has been steadily increasing. It is estimated that over 5 million older adults will have a substance use disorder by 2020 (Carew & Comiskey, 2018). The aging population in MAT is also correlated with the high proportion of baby boomers that were affected by the overprescribing of opioids in the 1990s (Carew & Comiskey, 2018; Han et al., 2015; Lofwall, Brooner, Bigelow, Kindbom, & Strain, 2005). This generational cohort also had a higher exposure to drugs and alcohol at a younger age which puts them at a higher risk for substance

abuse (Chhatre, Cook, Mallik, & Jayadevappa, 2017). As each year passes, there are more and more older adults receiving treatment in MAT programs but there is limited information on how they age on methadone or buprenorphine. Opioid treatment providers in MAT clinics often do not have any training on how to provide specialized care to meet the needs of the aging population (Bender, Robert, Klein, Quan, & Perkins, 2019).

Older patients in MAT have more physical and mental comorbidities than their younger counterparts that may influence their response to treatment (Fareed, Casarella, Amar, Vayalapalli, & Drexler, 2009; Daniel Rosen, Smith, & Reynolds, 2008; Searby, Maude, & McGrath, 2015). For example, patients who have other chronic conditions such as diabetes and mental illness may be taking medications in addition to MAT for opioid use. If they are not communicating openly with their primary care physician and opioid treatment provider, they may experience side effects from drug-drug interactions (Connery, 2015). Older adults in MAT also face more challenges accessing care due to structural barriers associated with how MAT clinics function. Some of these barriers include access to transportation and cost of treatment. Opioid treatment requires daily visits to the clinic to receive medication and if older patients do not have reliable transportation, they cannot receive treatment. All of these are examples of challenges older adults experience and that opioid treatment providers should be aware of to help improve care of older adults.

Providers at MAT clinics are not required to have training in gerontology nor are they typically evaluated on their knowledge of the life course and stages of adulthood. To work in an opioid treatment program (OTP), providers need either a master's degree in mental health or take Medication Assisted Treatment Specialist (MATS) training. MATS training provides an overview of the how MAT clinics operate and pertinent medication information, but does not

provide education specifically related to older adults. This will be discussed further in a later section, but it's important to note that providers are primarily trained on the organizational structure of a MAT clinic and what their role is as a provider. More research is needed to understand the process of aging in MAT, how age-related comorbidities influence treatment outcomes and what specialized training providers need to improve care for older adults in MAT (Han et al., 2015).

Problem Statement

The mean age of patients in MAT continues to rise but the needs of these aging patients has not been identified (Han et al., 2015). Due to limited research on specialized care for older adults, opioid treatment providers generally do not receive training specific to older adults and how other chronic conditions and comorbidities might influence their response to treatment (Carew & Comiskey, 2018). Providers need to receive targeted training about aging in order to provide the best possible care at their clinics. It is urgent that sufficient MAT programs are available to address the opioid epidemic and that these programs will provide the care needed for older adults with OUDs.

Purpose Statement and Objectives

The purpose of this project is to create and implement a training curriculum to educate opioid treatment providers on aging-related considerations for older adults in MAT programs.

Objectives:

1. To determine what providers know about aging-related considerations and what they are missing from their training on how to care for older adults in MAT.

2. To create and implement a training curriculum for opioid treatment providers about aging and age-related considerations during their care.
3. To assess effectiveness of the curriculum and revise as needed.

Significance Statement

This research is significant because the population in MAT is aging and there is limited research on how to provide specialized care for these individuals (Carew & Comiskey, 2018; Doukas, 2017; Satre, Mertens, Areán, & Weisner, 2003). Providers at MAT clinics are not required to have training in gerontology and there are few opportunities for them to receive training in aging once they start working in the field. This research will create a training curriculum to fill the gap and provide access to training specific to older adults. This research sheds light on the significant gap in knowledge and assessment of older adults in MAT and ideally will encourage researchers to study the effects that long-term methadone use has on the aging process and how it may differ from non-opioid users.

Thinking towards the future, this training curriculum will bring awareness to the gaps in specialized care and will help guide conversations between patients and providers about end-of-life care. In the United States, it is not uncommon for people to move into assisted living or nursing homes as they age but these facilities are currently not equipped to handle older adults on a methadone regimen (Doukas, 2017; Goldberg & Grabowski, 2003). Hopefully, this research provokes meaningful conversations and inspires researches and policy makers to improve the treatment of older adults with OUDs and ways patients can continue their regimen as they move into the next phase of their life.

Definition of Terms & Acronyms

Opioid Agonist: Drugs that bind to opioid receptors in the brain to elicit the effects of opioids. Examples include heroin, oxycodone, methadone, morphine, etc.

Buprenorphine: a medication prescribed to treat opioid use disorders that help relieve withdrawal symptoms, reduce cravings and prevent relapse; buprenorphine is a partial opioid agonist meaning it does not fully eliminate withdrawal symptoms (SAMHSA, 2015b).

Chronic Obstructive Pulmonary Disease (COPD): a lung disease where there is constant constriction of the airway that makes breathing difficult (World Health Organization, 2019b).

Comorbidity: when two or more illnesses occur at the same time in an individual (National Institute on Drug Abuse, 2012).

Older Adult: there is no consistent definition of an older adult in current literature; however, in this study, older adults will be defined as anyone who is age 50 years or older unless otherwise noted.

Medication Assisted Treatment (MAT): the use of FDA-approved medications, including methadone and buprenorphine, to treat opioid use disorders. Treatment also involves counseling and behavioral therapy (SAMHSA, 2015b).

Methadone: a medication prescribed to treat opioid use disorders that helps relieve withdrawal symptoms, reduce cravings and prevent relapse; methadone is a full opioid agonist (SAMHSA, 2015b). It does not produce the same euphoric effects, but acts to reduce withdrawal symptoms (National Institute on Drug Abuse, 2018).

"Not in my Backyard" (NIMBY): the negative attitude and opposition towards putting something deemed unsafe or unwelcome in an individual's neighborhood (Kinder, 2019).

Opioid: a class of drugs that includes heroin, synthetic opioids (fentanyl, etc.) and prescription painkillers (oxycodone, morphine etc.) (National Institute on Drug Abuse, 2018).

Opioid Treatment Program (OTP): a program that provides medication assisted treatment for opioid use disorders. They must be certified by SAMHSA, receive a license in the state they provide service and register with the Drug Enforcement Agency (SAMHSA, 2015b).

Opioid Use Disorder (OUD): consistent use of opioids that leads to impairment of daily activities or distress (American Psychiatric Association, 2013).

OTPG: Opioid Treatment Providers of Georgia

Review of Literature

Introduction

With advances in medicine and technology, our society has higher life expectancies than before, and the baby boomer generation is living longer than generations previously (USC, 2019). The baby boomer generation is at higher risk for substance use disorders because they were impacted by the over prescription of opioids in the 1990s and lived through a time where they had a high exposure to drugs and alcohol. These two factors influenced the number of older adults who have been diagnosed with an opioid use disorder and are being treated in MAT clinics. An older adult is defined as someone who is 50 years or older, but note that not all 50-year-old adults are the same physically, mentally or socially. People age at different rates at in different ways, some experiencing more physical and mental decline than others.

Patients in opioid treatment programs are getting older and are facing extra health challenges physically, mentally and socially. The problem is that opioid treatment providers are not being trained to recognize these changes or provide specialized care to older adults with these comorbidities. In order to understand the aging population in MAT and their extra care needs, the following are worthy of exploration: a) an understanding of how older adults age, b) how aging might influence treatment needs, c) a general understanding of what medication assisted treatment is, and d) the barriers to accessing treatment for older adults. Finally, an introduction to who treatment providers are is needed in order to know what training they receive, what care they are capable of providing, and where they may need additional training.

Age-Related Changes

Older adults in MAT have more physical and mental health concerns than their younger counterparts with distinct treatment needs (Lofwall et al., 2005; Searby et al., 2015). Aging is accelerated for patients who have abused opioids for long periods of time, so their physical functionality deteriorates at a faster rate than it would for a non-opioid user (Carew & Comiskey, 2018; Doukas, 2017; Gaulen, Alpers, Carlsen, & Nesvåg, 2017; Reece, 2007). The aging population are developing physical limitations natural to aging such as arthritis and fatigue along with other common chronic conditions, mental health, and social changes that can impact treatment outcomes. There needs to be a better plan for patients in MAT as they enter the later stages of their life regarding how they will continue treatment even as they decline.

Physical health changes.

Physical decline is a natural part of the aging process but is likely to occur sooner in older adults with a history of opioid use. Illicit drugs are known to accelerate the aging process by interfering with cell growth, killing cells and making it difficult for cells to regenerate (Reece, 2007). People who have used illicit drugs for long periods of time may experience physical decline sooner than non-drug users their age. Physical decline could include limitations in mobility, chronic health conditions, sensory decline, or a combination of these (Dürsteler-MacFarland, Herdener, & Vogel, 2014).

A retrospective chart review of patients enrolled in methadone maintenance treatment at the Atlanta Veterans Affairs Medical Center between 2002-2007 was conducted by Fareed et al. (2009). They found that in combination with their OUD, 18% of adults over forty in MAT also had diabetes, 73% had hypertension, 25% had coronary artery disease and 16% had chronic obstructive pulmonary disease (COPD) (Fareed et al., 2009). Another study examining comorbid health conditions found that close to 60% of older patients on methadone reported fair to poor

physical health due to chronic conditions such as hypertension and arthritis (Daniel Rosen et al., 2008). COPD and other chronic conditions were also found to be much more prevalent among older adults in MAT than older adults without OUDs (Maruyama, Macdonald, Borycki, & Zhao, 2013).

One of the biggest health risks for older adults in MAT is COPD. COPD causes a build-up of CO2 because the lungs are not able to expel all of the air. COPD can be managed, but methadone and buprenorphine can cause reduce respiratory function which would exacerbate a patient's COPD (Barbor, 2017; Vozoris et al., 2016). If too much CO2 is retained, it can have serious and even fatal effects on a patient. The COPD rates are higher due to a higher likelihood of smoking among individuals with OUDs (Maruyama et al., 2013; Smye, Browne, Varcoe, & Josewski, 2011; Volkow, 2004). This is a perfect example of why training in gerontology and the risks for older adults in MAT is so important for opioid treatment providers to learn. Providers need to be aware of common chronic conditions, the potential compounding effects of methadone on these chronic conditions, and ways to mitigate this risk.

Older patients with heart disease are another population of concern because long-term methadone use can cause heart arrhythmias, so these patients need to have routine EKGs to make sure their heart is beating correctly (Alinejad, Kazemi, Zamani, Hoffman, & Mehrpour, 2015). Patients who have a history of stimulant use are at a higher risk of heart arrhythmias and cardiomyopathy - damage to the heart muscle (Alinejad et al., 2015). Due to the risk of exacerbating a comorbid condition, providers in opioid treatment programs need to learn what signs and symptoms to look out for when treating older adults with complex health needs. Comorbidities are high in the older adult population which providers in opioid treatment programs should be aware of in order to provide the best care (Searby et al., 2015).

One concern is that patients with one or more comorbidities are not communicating with their primary care provider about their methadone use or that they are not seeing a primary care physician at all. People with OUDs have a tendency only to seek medical care when their illness becomes severe (Maruyama et al., 2013). When they do finally go see a doctor, there is usually little collaboration between a patient's primary care physician and their opioid treatment provider, which makes it difficult to coordinate care and reduce the risk of drug-drug interactions (Connery, 2015). Older adults should be monitored for drug-drug interactions because as patients age, the way they metabolize drugs changes. Providers need to keep a close eye on any symptoms indicating a need to shift treatment doses to maintain effective levels.

Mental health changes.

In addition to the deterioration of physical health, mental health is important to monitor in older adults. Almost 10% of all older adults have clinically diagnosed depression while many others experience subclinical levels of depression (Backenstrass et al., 2006; Unützer, 2007). Individuals who abuse drugs have a much higher risk of developing a mental health condition which makes older adults with OUDs a vulnerable group for experiencing mental health disorders (National Institute on Drug Abuse, 2012; Daniel Rosen et al., 2008).

Rosen et al. (2008) found that 57% of older patients on methadone had at least one mental health condition. Patients may experience anxiety or depression for a variety of reasons; one reason has to do with the multiple stigmas experienced by older adults in MAT. Older adults may be stigmatized for their age, their history with an addiction, taking methadone, and potentially other co-occurring physical or mental health conditions. This will be discussed in a later section in more detail. Experiencing stigmas for multiple characteristics can be

overwhelming. Social isolation is another factor contributing to mental health decline in older adults and will be discussed in the next section (Holt, 2007).

Older adults in MAT reported feeling anxious about needing to rely on treatment medications daily for both their mental health condition and addiction (Holt, 2007). Both psychotropic medications and methadone for the treatment for OUD are not cures for their conditions and will likely need to be taken daily for the remainder of an individual's life. While there are opportunities to be taken off one or both of these medications, this treatment generally requires long-term use to manage mental health condition and addiction. Treatment providers should be aware of the high prevalence of mental health conditions among older adults with OUDs and about the additional worries older adults have about taking medications long-term so they can help ease the transition into MAT.

Dementia.

Older adults may experience decline in their cognitive abilities with age. Cognitive decline doesn't occur for everybody, but about 40% of adults over 65 experience some memory loss (Alzheimer's Society, 2018). Some normal and abnormal signs of cognitive aging are listed in Table 1. Dementia itself is not a disease; it is a term that describes symptoms of cognitive decline. Examples of dementia includes Alzheimer's disease, vascular dementia which is caused by a stroke and Lewy body dementia which is caused damage to brain cells from protein deposits (Alzheimer's Society, 2018). The symptoms of dementia typically start slowly and progressively get worse which is why it is important for treatment providers to be familiar with warning signs of memory problems that could interfere with treatment.

Table 1
Signs of normal and abnormal memory loss (Alzheimer's Society, 2018).

Normal Aging	Dementia
Not being able to remember details of a conversation or event that took place a year ago	Not being able to recall details of recent events or conversations
Not being able to remember the name of an acquaintance	Not recognizing or knowing the names of family members
Forgetting things and events occasionally	Forgetting things or events more frequently
Occasionally have difficulty finding words	Frequent pauses and substitutions when finding words
You are worried about your memory but your relatives are not	Your relatives are worried about your memory, but you are not aware of any problems

Older adults who are stable in MAT have the opportunity to have take-home status, so providers should conduct regular cognitive assessments to determine ability to continue at-home treatments, meaning they can take medication home for multiple days at a time instead of going to the clinic daily (Fullerton et al., 2014). The risk of accidental overdose rises as the cognitive function of older patients declines. Because opioid treatment providers see their patients on a regular basis and are likely to notice and cognitive changes before a primary care physician would, this further supports the need for training to recognize signs of cognitive decline for the safety of their patients.

Social network changes.

Older adults in MAT have a relatively small social network because they lose contact with their family and friends, or people in their social network are passing away (Gaulen et al., 2017). Over 70% of older adults reported having poor social networks in a recent study (Gaulen et al.,

2017). Gaulen et al. (2017) also found that older adults in MAT have a tendency to isolate and avoid relationships because of feelings of guilt and grief, and because these relationships are often associated with their past life as a drug user, among others (Gaulen et al., 2017; Smith & Rosen, 2009). Older adults reported feeling guilty about not being present and supportive for their family and for how their drug use negatively impacted these relationships (Smith & Rosen, 2009). They felt shame for their choices related to drug use and expressed grief over the lost time with their family and friends. The feelings of guilt and grief often were experienced together for older adults in reference to the people closest to them (Smith & Rosen, 2009).

Self-isolation was also attributed to relationships that were related to life as a drug user. Maintaining these relationships would be potential triggers and cause relapse into using harmful drugs. Smith and Rosen (2009) found that almost a quarter of participants in MAT reported close family and friends still use alcohol and illicit drugs. Patients in MAT must then choose between taking a risk towards relapse by keeping close friends and family in their lives or cutting them out of their lives and starting a new chapter. Either way, it is not an easy choice from someone who wants to remain clean yet needs the psychosocial support.

The fear of being triggered into relapse may impact the level of trust patients express in new relationships and make older adults in MAT more hesitant to open up to new people (Smith & Rosen, 2009). Without being able to trust new people, it is difficult to foster new relationships, which keeps their social networks small. Older adults may not have the support they need physically and emotionally during MAT due to having smaller social networks. This is also important to note because physical limitations may become a barrier to accessing treatment and if patients don't have a strong social network with friends or family to help them get to treatment, they may miss doses or have to discontinue treatment.

Kim et al. (2006) conducted a study examining the effect social relationships had on substance use and recovery of 112 men from Illinois. Researchers conducted qualitative interviews to discern the impact of different types of relationships and found that all social relationships had a positive impact on either substance use or recovery but children were the sole relationship that positively impacted both (Kim, Davis, Jason, & Ferrari, 2006). This study demonstrates the importance for social support from family and friends through the addiction recovery process. As people age, their social network becomes smaller and it is harder to find the support they need, negatively impacting their substance use and recovery process in MAT.

End of life care.

When it comes time to enter into an assisted living facility or nursing home, older adults face challenges continuing their MAT in the facility (Cotton, Bryson, & Bruce, 2018; Gaulen et al., 2017). A reporter from STAT, a company focusing on health and science, found that many nursing homes across the country are not accepting patients who are on medications for OUDs (Bond, 2018). Many of these facilities do not have a clinician on staff who can prescribe the medication and since they are already low on resources, they do not have the capacity to continue treatment at the facility (Bond, 2018; Dursteler-MacFarland, Vogel, Wiesbeck, & Petitjean, 2011). MAT is highly supervised and staff members in nursing homes are often not certified to administer methadone or buprenorphine (Bond, 2018). This means the staff would either have to bring the client to an opioid treatment provider or pharmacist who could administer the medication daily or a licensed medication assisted treatment specialist would need to come to the nursing home. Either way, there are often not policies currently in place to address these concerns and continue managing care for those in MAT.

A skilled nursing facility wrote a case study about an older adult on methadone maintenance and the level of care coordination that was needed to maintain his treatment plan in the facility (Goldberg & Grabowski, 2003). Staff in the nursing facility identified and monitored potentially addictive behaviors, created a structured contract with the patient, and organized daily transportation to his methadone clinic since he had limited mobility and was unable to go alone (Goldberg & Grabowski, 2003). There were learning curves for the facility, as they had never had to manage daily methadone treatment for a resident before, but they took the time to prioritize the quality of life of their resident the best they could manage with the resources they had. The staff at this facility concluded their report by recommending that staff in nursing facilities should receive more specialized education on addiction and aging which seems to be a common theme among providers for this subpopulation.

Conclusion.

As adults age, it is natural for their bodies to undergo physical and mental changes. Older adults are at higher risk for developing chronic diseases and may experience cognitive changes, both of which can influence treatment. Their social networks become smaller during a time when they need to think about their future and end-of-life decisions. Treatment providers need to be aware of these changes as they occur in their patients and keep consistent communication with their primary care providers to prevent drug interactions from occurring. Being able to recognize symptoms of decline and refer patients to necessary resources is important as an opioid treatment provider.

Medication Assisted Treatment Model

Model description.

Medication assisted treatment has been available in the United States since 1964 (Fullerton et al., 2014). The program administers either methadone or buprenorphine along with psychosocial counseling to patients with opioid use disorders. Initial theories about OUDs was that adults would "age-out" of their opioid use and wouldn't need treatment once they got to a certain age, however many studies have shown this is not the case (Carew & Comiskey, 2018; D. Rosen, Hunsaker, Albert, Cornelius, & Reynolds, 2011). Once this realization was made, MAT began operating with the assumption of long-term care.

Most MAT models are operating on a 'harm reduction' theory, meaning their goal is to reduce the harm rather abstinence (Smye et al., 2011). A central theme in the harm reduction approach is to reduce the negative consequences from opioid use rather than eliminating the complete use of the drug (Smye et al., 2011). This means that opioid treatment programs are not designed with an end goal of complete detoxification; rather, these programs aim to help patients reduce their illicit drug use so they can gain some control over their lives. This method has been described as pragmatic and more realistic than other forms of treatment for opioid use disorders (Jarvinen, 2008). The way MAT clinics reduce harm is by the use of opioid agonists, such as methadone or buprenorphine, which eliminate withdrawal symptoms and help patients start rebuilding their lives.

Even though medication assisted treatment is the most successful and most common treatment for opioid use disorders, there are several structural barriers that make access to treatment difficult, especially for older adults. Older adults have better outcomes than their younger counterparts in MAT, but they need to overcome these structural barriers to access treatment in the first place (Satre et al., 2003). To provide quality care, providers need to be

aware of these challenges and have knowledge of available resources to help older patients remain in MAT.

High threshold.

The MAT model commonly used today has been referred to as a "high threshold, low tolerance" model due to the difficulty in accessing and staying in treatment (McElrath, 2018). High threshold refers to the numerous barriers that patients face and the rules they must adhere to in order to receive treatment in an opioid treatment program (OTP). The barriers that will be discussed are geographical access, wait lists and cost of treatment.

Geographical access.

Physical accessibility is a barrier to receiving treatment in MAT clinics throughout the United States. According to the Drug Enforcement Administration, 254 new clinics opened between 2014 to 2018, which was a good start to improving access. However, the surge in new clinics declined in some states when they began limiting the number of licensed clinics they would allow to open (Vestal, 2018). Currently, there are over 1600 methadone clinics across 39 states in the United States, but the clinics are commonly located in urban regions with limited access for rural patients (Vestal, 2018). Less than 20% of all people with OUDs receive MAT and this is partially due to limits in geographical access (Saloner & Karthikeyan, 2015).

In a survey conducted in 2011 with 23,141 participants from OTP clinics in 34 states, patients recorded an average travel time of 15 miles to get to their treatment site (Rosenblum et al., 2011). OTPs provide a variety of both inpatient and outpatient treatment services for patients with opioid use disorders, but MAT clinics specifically are typically all outpatient (SAMHSA, 2015b). Figure 1 is a map of all the OTP clinics in the continental U.S. and the pinned locations were the ones that participated in the Rosenblum et al. (2011) study. The study did not include

many clinics from the Midwest or Northwest, which could skew the data. It is evident from the map that some regions are very sparse in the distribution of clinics. Patients in states like Wyoming, North Dakota and South Dakota do not have an OTP and would need to drive across state lines. In a subset of 10 OTPs sampled in the study, over 20% of the patients crossed state lines (Rosenblum et al., 2011). With limited physical access to clinics, patients in some parts of the U.S. don't have many options for treatment.

Older adults may have a harder time finding access to transportation or have mobility issues that prevent them from getting to the MAT clinic (Maruyama et al., 2013). In a study conducted in New York, researchers examined patient records from all approved OTPs in the state and found that older adults reported mobility impairment more often than their younger counterparts (Han et al., 2015). With reduced mobility and a smaller social network, older adults may face challenges getting to the clinic daily because they don't have the extra support they need from family and friends.

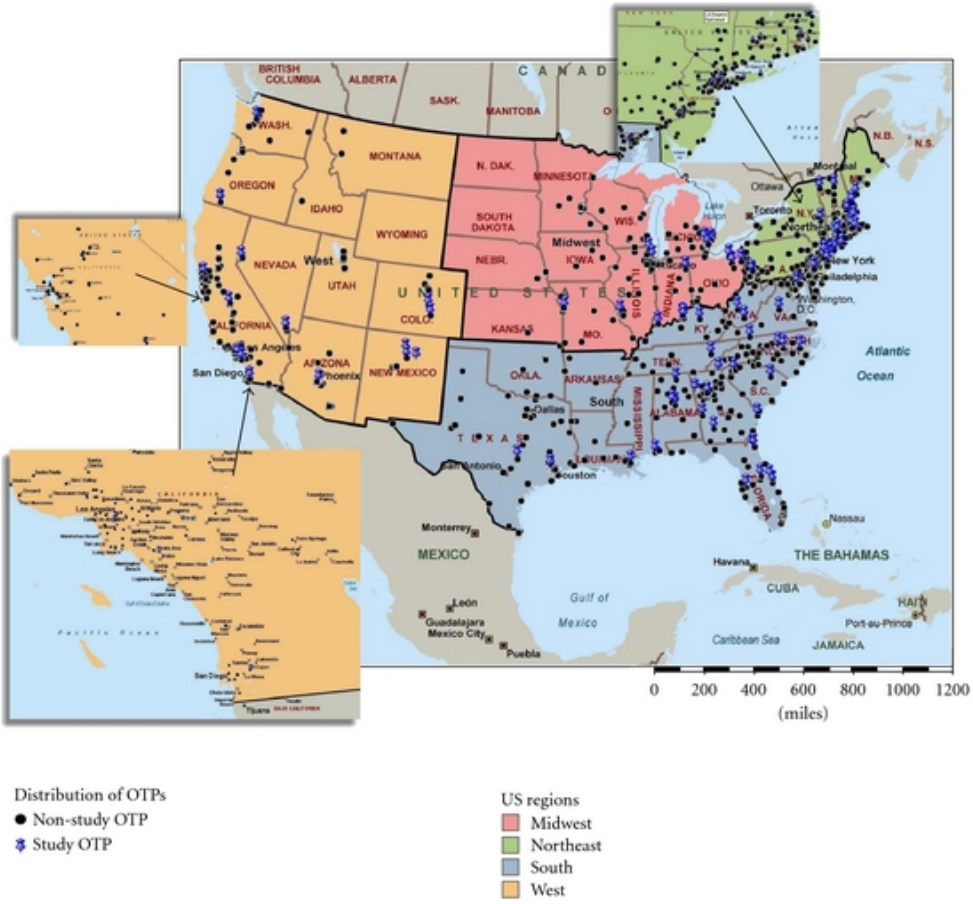

Figure 1: Map of OTPs in the continental United States by region (Rosenblum et al., 2011).

Another geography-related consideration is the “Not in my backyard” or NIMBY stigma that people with addictions face. NIMBY means that people do not want OTPs near their homes for fear of being in close proximity to “addicts”; i.e. they don’t want OTPs in their backyard. This creates a barrier to access when OTPs are not approved in rural areas of need. In Massachusetts, a new MAT clinic was denied approval to be opened in a community and a local resident expressed her gratitude by saying, “We will sleep better tonight” (Galang, 2010). The stigma around being an “addict” is strong and will be discussed further in another section.

Stigma affects people of all ages but older adults in MAT have a tendency to experience stigma at a higher level by having multiple stigmatizing characteristics.

Wait lists.

Due to the limited number of OTPs available in some regions, patients can remain on wait lists for months at a time without treatment, which increases the rate of substance use and mortality (Peles, Schreiber, & Adelson, 2013). Between 50-75% of all patients have to wait over 30 days before they can receive treatment (Andrews, Shin, Marsh, & Cao, 2013).

In order to improve wait times, some states have considered using interim methadone care for waitlisted patients, which would provide them with methadone while waiting to be admitted without any of the other services in regular OTP clinics (Sigmon et al., 2015). Similar to interim methadone treatment, Madden et al. (2018) implemented an "open-access" model to rapidly enter patients into MAT. They used the NIATx model which aims to reduce wait times and no-shows while increasing admission and retention using grant funding from the Robert Wood Johnson Foundation (NIATx, 2019). In order to reduce wait times and no-shows, the NIATx model encourages clinics to change the admission process by eliminating or altering some of the documentation and exams required for admission. The clinics either allow patients to turn these documents in on a second visit or staff will complete the exams during the first visit (NIATx, 2019). Once the NIATx model was implemented in their pilot study clinic, wait times were eliminated and patients were seen on the same day, improving retention (Madden et al., 2018). This study was centralized to one clinic in Connecticut but could be tested in other regions of the country to monitor success and feasibility. With its success in Connecticut, NIATx is one possible step towards better treatment access for people with OUDs.

Cost of treatment.

Treatment for OUD costs an average of $18 a day for both methadone and counseling services (National Institute on Drug Abuse, 2018). A study conducted by Jones et al. (2015) showed that patients in MAT had limited insurance coverage, and Abraham & Lori (2008) found that a large number of patients were on government subsidies to help pay for treatment. The Treatment Episode Data Set from 2005-2015 supports these findings and reports that almost 40% of patients admitted to treatment services do not have insurance and roughly 32% will rely on government sources of payment (SAMHSA, 2017). This presents a barrier to care because without insurance, out-of-pocket expenses are high.

Medicare is available for adults age 65 and older in the United States. In a study conducted in 2017, older patients on Medicare reported they had higher out-of-pocket expenses for their OUD treatment because Medicare did not cover methadone (Cotton et al., 2018). The Affordable Care Act included MAT services as essential but did not explicitly include methadone so it was not covered (Cotton et al., 2018). Without coverage, treatment becomes a financial burden for many older adults.

Luckily, there have been moves to increase coverage for patients in MAT. The Mental Health Parity and Addiction Equity Act (MHPAEA) of 2008 required behavioral health services to be included in health coverage plans, but this did not necessarily cover all addiction treatment medication (SAMHSA, 2017). For those that are covered by Medicaid, coverage has expanded. In February 2018, the Kaiser Family Foundation released a report stating that every state Medicaid program covers at least one MAT medication and some cover more than one (Kaiser Foundation, 2018). A total of 36 states are now covering methadone under Medicare which is the most common medication prescribed in MAT.

On February 23rd, 2018, Representative Holding from North Carolina introduced H.R. 5080, also called the Comprehensive Opioid Management and Bundled Addiction Treatment (COMBAT) Act of 2018 ("COMBAT Act of 2018," 2018). The COMBAT Act would provide Medicare coverage for services offered by OTPs which would be a breakthrough for patients who cannot afford to pay for their daily dose of methadone or buprenorphine currently. According to the OTP Consortium, there are 300,000 Medicare beneficiaries that have been diagnosed with OUDs (Elling, 2018). Luckily, this legislation later became a part of the larger Opioid Response Act that was passed and signed by President Trump on October 24th, 2018. Beginning in 2020, Medicare will cover methadone for adults age 65 and older, meaning they will be able to stay in MAT even after switching from previous insurers (Vestal, 2018). This will improve access for older adults by removing the cost burden, but they must find an alternative payment method until then. This is also likely to increase the number of older adults seeking MAT, increasing the need for specialized training and care.

Low tolerance.

There are several strict rules in OTPs that patients must adhere to that characterize the 'low tolerance' part of the MAT model in the United States. The low tolerance barriers include the need for daily doses, take-home doses and a power imbalance that reinforces "addict stigma" (McElrath, 2018). The reason for these strict rules is because methadone overdose is very dangerous, so providers try to mitigate risk by keeping patients under strict medical supervision (Mattick, Breen, Kimber, & Davoli, 2009).

Daily dosing.

Since methadone is only effective for 24 hours, a daily dose is required. This can be difficult for many patients. It places employment restrictions on patients because they are

restricted to clinic hours for their daily dose and this may not coordinate with their work schedule. Many clinics are very strict about punctuality and if a patient shows up late, they cannot receive their dose. This makes it difficult for patients to remain clean because, without a daily dose of methadone, they can begin to experience cravings and withdrawal symptoms. Patients need to alter their entire life to work around their methadone schedule. In an interview with MAT participants, a patient stated that they had so much more freedom before they started taking methadone (Harris & McElrath, 2012). Even when they were using drugs, they were able to maintain a steady job, but as soon as they started taking methadone, it was much harder to find and hold a job. In their own words, this participant said, *"…there's not gonna be very many employers who go, 'That's okay. Sure, come in an hour or two after you get your methadone…'"* (Harris & McElrath, 2012). Unless patients find employment to work around their methadone schedule, they face the risk of unemployment and relapse.

Patients also describe their experience in MAT as being chained by "liquid handcuffs" (Holt, 2007). Not only do they feel chained by the physical dependence on methadone, but also by the restrictions and rules placed on them by OTPs. In our culture of "independence", being dependent on anything is difficult and uncomfortable. Older adults face more dependence on others than younger patients in MAT due to physical limitations mentioned previously. Having a smaller social network and a decline in physical mobility can make transportation to the clinic for daily doses difficult, especially if friends and family have jobs that won't let them take off work during clinic hours.

Take home doses.

Since daily dosing is a large inconvenience, it would make sense to allow patients to pick up several days of medication at one time so they didn't have to worry about strict dosing

schedules. However, patients need to have been in MAT over three months and given permission before they can have take-homes (Fullerton et al., 2014). Take-home doses are only allowed after a patient has proven they are stable and can be trusted taking the medication home with them. Even when take-home status is granted, stringent restrictions apply for storage, behavior, and attendance at the clinic (SAMHSA, 2015a). The strict take-home rules are designed to prevent diversion, when patients sell or give away their medication to others. For older adults, however, take-home status may present some challenges if they have cognitive decline and can't remember if they took their daily dose or not. Research shows that older adults may have poor cognitive functioning from both natural aging and years of opioid use (Dursteler-MacFarland et al., 2011; Maruyama et al., 2013). If patients are not taking their doses accurately due to cognitive decline, they can begin to experience withdrawal symptoms or are at risk of an overdose. Providers should be trained to monitor cognitive functioning in older adults to prevent negative consequences of improper dosing.

Power dynamics.

Having such stringent rules places power in the hands of the providers to punish and penalize patients at their discretion for not adhering to the rules (Damon et al., 2017). The creation of a power dynamic between two individuals is one of the main components of stigma which will be discussed in a later section. Apart from the stigma created towards patients in MAT, the power imbalance takes autonomy away from patients (Damon et al., 2017). They are trapped in the "liquid handcuffs" and must follow what providers say or they may not be able to continue treatment (Wood, Opie, Tucci, Franklin, & Anderson, 2018).

Conclusion.

All of the strict policies in MAT take autonomy away from patients, which can reduce retention rates. In a qualitative study conducted by Harris & McElrath (2012), participants were asked about the reasons they left treatment. The researchers found that most left due to structural factors rather than personal. The most common reasons patients left were because daily methadone collections had limited times, long wait times, supervised consumption of medications, lack of privacy, and MAT disrupting their lifestyles (Harris & McElrath, 2012). Many of these issues are attributed to the 'High Threshold, Low Tolerance' model described above that reduces accessibility and retention in MAT.

It is important to understand how the current model of MAT works because the barriers that all patients face can be exacerbated for older adults. If providers are not aware of how the system is structured against older adults, they are not able to provide adequate care to keep them in MAT. Treatment providers may need to do more than just provide daily doses of medication; it is becoming necessary to connect patients with resources to manage transportation as older patients lose the ability to drive, to apply for Medicare to help pay for treatment, reduce stigma and to monitor patients closely to manage take-home dosing.

Stigma

After discussing the structural barriers for MAT clinics, it is important to understand a patient's personal experience with MAT. Their experience will determine retention just as much as physical barriers, and stigma plays a large role in patients' lives. Being stigmatized for a personal characteristic is difficult to deal with emotionally and older adults tend to face several

stigmas at once. This section will discuss the forms of stigma all patients in MAT face and how it influences their care.

"Addicts".

Individuals with opioid use disorders are often labeled as "addicts" in the general community which carries a strong stigma. Stigma emerges when a personal attribute is viewed negatively and creates a distinction between "normality" and "otherness". From the distinction of being an "other", in this case an "addict", a person's experience and identity is shaped from the external judgement they receive about that attribute (Fraser et al., 2017). This "otherness" also creates a power imbalance that further exacerbates stigma in social settings (Harris & McElrath, 2012). Link & Phelan (2006) further break down stigma into 5 components. The first involves categorization of individuals according to certain characteristics people decide to emphasize such as a health condition or mental disorder. The second component is stereotyping and labelling the person negatively based on the chosen characteristic. The third component is the distinction between "them" and "us" and the fourth component is when the stigma is imposed on individuals, causing discrimination and loss of status. The fifth and final component that gives stigma its influence is the exercise of power of one individual over another (Link & Phelan, 2006). A power imbalance already exists in the relationships between provider and patient in MAT leaving room for stigma to emerge. There are two main ways stigma can present itself: institutional and internalized.

Institutional stigma.

Institutional stigma refers to outward or social stigma and stems from how the system is designed and the structural inequalities that exist. An example of a structural policy in MAT that

creates stigma is when patients have to sign a waiver saying they will not enter the pharmacy with friends or family because pharmacists assumed their social networks were primarily drug users (Harris & McElrath, 2012).

"They look at us like dogs, [as if we are] robbing and all. You see that paper [list of rules; contract] they give us when we start? We're not supposed to even look around the room." (Harris & McElrath, 2012).

This stigma stems from the unequal power distribution mentioned previously that is created by the clinic structure. According to Harris & McElrath (2012), without power over the "addict", there is no stigma (Harris & McElrath, 2012). There is power for the provider in their ability to apply the rules, punish misbehavior, and adjust patient doses at their discretion. The patient begins to feel like they have no say in their care and are losing their autonomy. These power dynamics and hyper-supervision of patients exacerbates the outward, institutional stigma patients feel.

Another example of institutional stigma results from structural inequalities on a larger level such as insurance coverage for methadone. There is a large gap in medication coverage for patients in MAT which could partially be due to societal stigma around addiction and methadone that prevents methadone from being included. Until we change views of addiction and methadone on a societal level, patients will be stigmatized on an individual and institutional level. Some of the other high threshold and low tolerance barriers discussed previously also fall into this category as forms of stigma based on the design of the MAT system. These include daily supervised doses and tight restrictions for take-home doses.

Internalized stigma.

In contrast to institutional stigma, internalized stigma, refers to the point when an individual begins to believe the stigma about themselves. When clients internalize the stigma and believe they are not as valuable or worthy, it can impede their recovery process. Similarly, Fraser et al. (2017) describes stigma as being either felt or enacted as a way to discern the difference between the expectation and direct experience of stigma. *Enacted stigma* is the experience of stigmatization and loss of respect from individuals such as the chemists or physicians. *Felt stigma* is the shame or feelings of being unworthy and the patient's experience from the discrimination (Fraser et al., 2017). The stigma patients feel from medical providers and others creates a barrier for honest communication about drug history and methadone use, which can be dangerous (Chhatre et al., 2017). Felt stigma from family can be especially hard to deal with. Nick, a 50-year-old patient in MAT, had this to say about his family:

"They don't trust me. And they think that a user is a junkie, a stereotypical junkie that'll steal from anybody" (Nick, 50) (Fraser et al., 2017).

Bobby, a 45-year-old patient, states that his mother judges him for using drugs. The loss of trust and respect from those who are supposed to provide the most support is heartbreaking and guides people to suffer in silence (Fraser et al., 2017).

There is a common belief that MAT is just substituting one drug for another, therefore continuing the stereotype of "addict" for those in MAT. People who have not had any exposure to MAT may believe that taking methadone is equivalent to the use of heroin or other illicit drugs. Patients cannot escape the "addict" stigma even when they are not using drugs anymore. Then, if they have a comorbidity that carries its own stigma, such as HIV or Hepatitis C, the level of discrimination they face is magnified.

Multiple stigmas.

Older adults in MAT tend to face multiple stigmas. In a study conducted by Gaulen et al. (2017), two-thirds of the older participants in MAT reported experiencing at least four stigmas; the most commonly reported stigmas were ageism, addiction, taking methadone and having a mental health disorder. Many older adults experience stigma due to their age because they feel like they are too old to belong in MAT. An example came from a study in the UK where researchers interviewed twenty drug users over the age of 55 about their experience in MAT. In these interviews, the most common theme that emerged was their feelings of stigmatization based on their age. One woman stated,

"When I come here and sit in the drop-in I feel embarrassed, younger people make me feel like I shouldn't be here" (Ayres, Eveson, Ingram, & Telfer, 2010).

A 65-year old African American woman in an interview conducted by Conner et al. (2008) noted feeling something similar. She said,

"I know I'm too old to be in here [methadone clinic]. I'm 65. And that's really too old to be, you know, in this situation. About me being in here [methadone clinic] and being that age, is going to be kind of rough for me" (Conner & Rosen, 2008).

Older adults in MAT feel and see the ageist expressions from both providers and younger people in MAT.

The stigma around having an addiction and taking methadone is felt across all age levels. Specific to older adults, 19 out of the 24 older adults interviewed by Conner et al. (2008) had experienced stigma based on their addiction and methadone use. The stigma they felt was both on a societal level and on an individual level from friends, family and even treatment providers.

One African American in particular summed up what many of the other older adults had reported. She said that when she tells people about taking methadone,

"I'm (Renee) and then I'm not (Renee) anymore, instead I am the woman on methadone. You know, then I'm one of those" (Conner & Rosen, 2008).

Patients in MAT become identified solely by their addiction and feel the negative societal stigma of being "nothing but a junkie".

Finally, there is an additional stigma from having a mental condition and taking psychotropic medications to manage it. Ten out of 24 respondents in the Conner et al. (2008) study reported feeling stigmatized for their mental illness and 11 of the 24 felt stigmatized for taking psychotropic medications. A 52-year old white man reported his family members making comments about him being "crazy" and that people should stay away from him because of his mental illness (Conner & Rosen, 2008). When friends and family are making such hurtful comments, it becomes difficult to talk about a mental illness and seek necessary treatment.

The accumulation of several stigmas causes significant societal challenges for patients and can begin to limit their help-seeking behaviors (Conner & Rosen, 2008; Searby et al., 2015). Older adults reported that older age made it especially difficult to remain in MAT because other people in MAT, including counselors, think they should "grow out of it" and question them on their future (Conner & Rosen, 2008). The individual stigma of any one of these things is difficult, but when one person has multiple, it is compounded. Older adults in MAT are more vulnerable to experience multiple stigmas which can negatively impact their treatment and retention rates.

Identity transformation.

In order to escape the stigma of being an "addict", users attempt to transform their identity to a "non-user" by distancing themselves from places and people associated with their drug use (Doukas, 2010). However, being on methadone maintenance can make that identity transformation difficult because they still have regular contact with other users and are still viewed negatively for taking methadone. Because they distance themselves from friends in their "past life", older patients in MAT tend to have smaller social networks to support them.

Efforts have been made to destigmatize opioid use disorder by labeling it as a "brain disease" instead of an addiction because the term 'addiction' has negative connotations and can cause negative or stigmatizing reactions from people. While having a "brain disease" may induce stigma of its own, researchers hope it will be less than being termed an addict. Viewing addiction as a disease versus a personal choice is slowly taking hold in society, but there is still a long way to go. Society needs to continue talking openly about addiction and normalizing the use of methadone to reduce stigma for those receiving MAT for an OUD.

Conclusion.

Older adults tend to face multiple stigmas in MAT (Searby et al., 2015). Experiencing stigma can play a strong role on how people decide to discuss their treatment status with friends, family and healthcare providers; it completely changes their experience with treatment and can influence retention rates. Treatment providers need to be aware of potential stigmatizing conversations or actions while interacting with patients to provide the best possible care. They should also have basic training in ways to talk with patients about the stigma they face on a regular basis and be able to determine whether or not a referral is needed for additional counseling.

Provider Training

Now that there is familiarity with how MAT clinics function and how older adults experience their MAT, it is important to discuss the role of the providers. There needs to be an understanding of who the providers are, what their previous and current training is, and what care they are able to provide to meet the specific needs of older adults. This information is critical to identify gaps in order to guide training for providers in OTP clinics.

Provider background.

Providers in OTPs can be medical doctors, nurses, social workers, counselors or clergy, among others (SAMHSA, 2015b). These providers have varying educational backgrounds and their training ranges from having two years of college education to having a medical degree or beyond. To work in an OTP, providers need to have some training specific to MAT, which varies depending on their current credentials. For example, physicians are only required to take an 8 hour training course about prescribing methadone and buprenorphine while counselors or social workers need additional Mediation Assisted Treatment Specialist (MATS) training, which can be 35 hours or more of training (PCSS, 2019). MATS training is a general overview of the daily operations in MAT and about the treatment process. Unfortunately, this training typically does not contain information specific to older adults. In many cases, the providers who work in OTPs have not received any training directly related to aging (Bender et al., 2019).

Training requirements.

Training varies for providers to work in an OTP. Physicians need a MAT waiver to be able to prescribe methadone or buprenorphine which involves an 8 hour training course approved by the Drug Enforcement Agency while Nurse Practitioners and Physician Assistants need an

additional 24 hour training plus the MAT waiver (PCSS, 2019). Other MAT providers, such as counselors and social workers, need to obtain a MATS certification. This will allow them to work in an OTP to supervise the daily dose intake, but they are unable to prescribe MAT medications. In order to apply for the MATS certificate program, participants must have up-to-date credentials in certified alcohol and drug abuse counselor (CADC) or something equivalent, have experience related to MAT and 30-45 hours of previous MAT-specific training (ICAADA, 2019).

Once accepted, MATS training involves a 35-hour online course followed by a two and a half day in-person training. Once the training is complete, individuals must pass a MATS examination to receive certification which would allow them to work in pharmacotherapy, provide recovery support, and deliver recovery education (ICAADA, 2019). MATS certification requirements may vary from one state to another, but generally follow these guidelines for MAT counselors.

The MATS certificate requirement to work in OTPs only includes specific training about the types of drugs and the process of providing MAT; the basic requirements generally don't have anything to do with aging or treatment of special populations (ICAADA, 2019). The National Association for Alcoholism and Drug Abuse Counselors (NAADAC) hosts a conference annually to provide additional education to treatment providers across the United States. In 2018, NAADAC had several sessions for incarcerated individuals, single mothers and adolescents with substance use disorders, but only one that focused on older adults with substance use disorders (*2018 Annual Conference*, 2018). Out of over 60 sessions, only one mentioned ways to identify and treat substance use disorders among older adults and even that session did not discuss the aging process in MAT or OUDs specifically. If a highly recognized

and attended national conference for addiction specialists doesn't have training about aging in MAT, it is unlikely that providers will be able to find and have access to the training they need about this population elsewhere.

Conclusion.

Opioid treatment providers are not required to receive specialized training in how to care for older adults in MAT. The population in MAT is getting older and there is not enough research about what specific care is needed for this population. Providers should be trained in basic aging principles so they know what to expect physically, mentally and socially from their older patients and how best to treat and serve them.

Conclusion

More research is needed in order to better understand how older adults age in MAT. There is little research on how the medical and mental health needs of patients change over time and what providers can do to assist them (Doukas, 2017). Opioid treatment providers have little opportunities for training on aging and how to handle comorbidities.

The aging cohort in MAT has physical and psychosocial needs that current treatment programs are not fully capable of addressing with limited specialty training. There are specific manuals for treating special populations in MAT such as pregnant women, people with HIV/AIDs, and people with mental health disorder, but nothing for the treatment of older adults (Doukas, 2017). More research about older adults in MAT needs to be done and training for providers in OTPs needs to be conducted in order to handle the growing number of older adults in MAT. Moreover, as adults are aging in MAT, there need to be important conversations about end of life decisions and how patients would like to proceed with treatment for the rest of their

life. Without proper research and training, the complex needs of these patients will be overlooked, and treatment will be inadequate.

Methodology

Overview

There is little research about caring for older adults in MAT for an opioid use disorder. Opioid treatment providers generally do not receive any targeted training on the process of aging and how the current treatment may need to be adjusted depending on existing chronic and age conditions (ICAADA, 2019). This section outlines the methods used to conduct a needs assessment, which includes semi-structured interviews with opioid treatment providers that will inform the creation of a training curriculum. The training curriculum will target the gaps in education about aging and aging-related considerations for older adults utilizing MAT and will be heavily influenced by the provider interviews.

In-Depth Interviews

Population and sample.

Eight MAT clinics throughout the state of Georgia were selected to participate in the current study. The MAT clinics are a mix of urban and rural with various demographics in NW Georgia, NE Georgia, Central Georgia and Metro Atlanta. The clinics were chosen based on the regions identified by Georgia Department of Behavioral Health and Developmental Disabilities as having the highest estimated prevalence of OUD (Griffin & McGuire, 2017). Providers were interviewed from all of the eight participating clinics across Georgia. Providers were eligible if they had been working at the clinic for at least three months and had direct contact with patients. Twelve providers were interviewed in total.

Recruitment.

Flyers were posted in each clinic with information about the study and the in-depth interviews (IDIs). Potential participants were given the contact information for Dr. Bender. Alexis Bender, Ph.D. is an Assistant Professor at Emory School of Medicine in the Division of General Medicine and Geriatrics and is the principal investigator of this pilot study. Participants were compensated $25 for their cooperation. Participation in the IDI is completely voluntary and providers were informed they could discontinue participation at any time during the study.

Procedures.

Once participants contacted Dr. Bender, she scheduled a time to conduct the in-depth interview. In-depth interviews were conducted with each provider to understand the challenges of treating older adults and to get insight into future training needs related to older adults. The participants were interviewed in a private room at their clinic or over the phone and the interviews were conducted by either Dr. Bender or a graduate research assistant (GRA). Interviews lasted approximately 90 minutes and informed consent was obtained verbally. The interviews were recorded and transcribed by an external transcribing agency. The interview guide is located in appendix E below.

Confidentiality and anonymity.

Physical transcripts of the IDIs were kept in a locked office at Emory University School of Medicine to maintain confidentiality. Transcripts were de-identified and numerical codes were used to represent participants so they can remain anonymous. All information was kept confidential. Digital recordings and other electronic data were stored on a HIPAA-compliant shared drive at Emory University School of Medicine that required credentialing to access.

Tracking information was kept on encrypted files that do not identify the project or the participant.

Data analysis.

Transcripts from the interviews were entered into NVivo11, a software designed for storing and analyzing qualitative data. The interview transcripts were coded by two research assistants. Following that, Jessica Biser, MPH Candidate, reviewed the coding for all transcripts and reconciled any differences. Researchers used thematic analysis to identify common themes among transcripts. Thematic analysis is a process of qualitative data analysis used to identify common themes or patterns that can indicate meaningful topics among the data. It is an iterative process, meaning that the themes were modified and continued to evolve as more data was available. Matrix queries were used to compare responses based on certain demographic characteristics of the providers such as their education level and background working in MAT.

IRB Approval

This project was initially included as an amendment to an existing pilot study to the Institutional Review Board at Emory University (IRB00100565), but an amendment was deemed unnecessary. The pilot study, led by Dr. Bender, Ph.D., aimed to gather information from patient focus groups and OTP provider interviews about barriers to treatment and study instruments to be used in a later study. The study instruments will be tested in 4 clinics to discern feasibility and ease of use in a larger mixed methods study aimed to improve the health and treatment outcomes for older adults in MAT for OUDs.

Curriculum Development

The purpose of the training program is to educate providers in OTPs about aging and considerations they should take while treating older adults receiving MAT.

Development.

Provider IDIs were thematically coded and analyzed to identify common themes. These themes were used to identify gaps in existing education and treatment of older adults in MAT programs at their clinics. Once the gaps were identified, the curriculum was developed. The target audience for the training curriculum are opioid treatment providers in Georgia that treat older adults in OTPs.

The curriculum consisted of two 50-minute training modules. The Opioid Treatment Providers of Georgia requested a training that was 2 hours long, so their request guided the length for the modules. The intention was also to use this training for future conferences so modules were designed to be less than one hour. The content for the curriculum was obtained from gerontology textbooks, government publications, and reliable online resources such as the National Institute on Drug Abuse and the Alzheimer's Society, among others. Dr. Bender provided input on the training curriculum during development. The curriculum also included pre/post-tests and evaluations so providers could give feedback about the curriculum for revision after pilot testing. The curriculum was approved by the Opioid Treatment Providers of Georgia organization to count as 2.5 continuing education credits for all providers who attended the pilot test session.

Pilot testing.

Once the training curriculum was developed, it was implemented to a group of twelve opioid treatment providers at Wesley Woods Health Center on March 27th, 2019. This training was led by Jessica Biser, MPH Candidate with support from Dr. Bender, Ph.D. and consisted of a PowerPoint presentation with handouts and activities. The curriculum was broken into two 50-minute sessions. See appendices A and C for the full session curriculum.

Curriculum analysis.

An evaluation was filled out by the treatment providers at the training to provide feedback and gauge the level of satisfaction with the curriculum. The evaluation asked providers what they enjoyed about the sessions, what they wish would have been covered, and recommendations they have to improve the curriculum. Pre- and post-tests were also given before and after each module and were evaluated descriptively to gauge the level of understanding of the material covered. Pre-post tests and the evaluation handouts are attached in appendices B and D.

Results

Needs Assessment

In total, there were 12 interview transcripts from providers who work in MAT clinics that were thematically coded. Three interviews were with clinic directors, six were with counselors, one was with a pharmacist and two were with nurses. Seven of the providers interviewed had been working in MAT clinics for six years or less, and four had been working at the clinic for seven years or more. Educational background varied among providers. Two providers had a two-year associate's degree, three had a bachelor's degree, six had a master's degree and one had a medical degree.

Emerging themes.

Theme 1: resources.

When asked about gaps in training about treating older adults, the most common response was wanting information on local resources (n=5). Providers consistently stated that they wanted a list of resources they could use to refer their patients to additional health care, transportation, counseling etc., specific to older adults. When asked what training the providers would like to see, one staff mentioned

"…I would really like to learn more about resources that are available in these people's area."

Another mentioned,

"We have a vast list of resources for people, but I don't know if any of those include aging…we really need to have a second or a third list of resources for people 50 and older."

Similarly, an additional provider noted,

"…I know it's like really specific to areas but resources would be huge because we're always at a loss."

The providers interviewed saw the needs of this subpopulation but were not equipped with the resources to do anything about it. When asked, most providers were unaware of the Area Agency on Aging and Georgia's Aging and Disability Resource Center, two very common aging-related organizations in Georgia.

Theme 2: overview of aging.

The next two most common themes were requests for a general overview of aging (n=4) and being trained in practical skills to help their older patients (n=4). Even providers that had worked in MAT clinics for over ten years were unfamiliar with the life stages of older adults and wanted basic-level education about the common expectations of aging. One provider stated,

"I think having an understanding of what the average Joe goes through with aging issues…and what we can kind of [say], okay, no let's pay attention to this because that's not necessarily a normal part of the process."

Providers also mentioned wanting training about specific changes relating to physical and cognitive functioning and how that might affect the care they provide in OTP clinics. There was a general interest in learning about what special health conditions older adults face and other life experiences they encounter that the treatment providers should be aware of, such as death and grief. One staff said,

"I would like to know how death effects the aging population, which often die."

The process of aging and experiences older adults face may influence their treatment outcomes, such as having multiple chronic conditions, smaller social networks, and mobility limitations. Providers in OTP clinics expressed the need for education about aging-related considerations to improve treatment of the older adults in MAT.

Theme 3: practical skills.

Providers stated they wanted practical skills to help their older patients, including help applying for Medicare, finding housing and grief counseling. One staff mentioned they already do a lot of grief work with their patients but noted they did not expect this as part of their position and did not receive any training in this area beforehand. They stated,

"Grief and trauma work are just par for the course when you're working in substance abuse…"

Since older adults will experience loss of friends and family, providers also want better training in grief management.

Staff were also interested in finding concrete solutions and connections for their patients.

"I would really like practical training. I would like to know how to apply for disability, but I would also just like to find interventions that work with an aging population.".

Another staff member stated they would like training related to housing,

"I don't know if that's a thing, but knowing how does Section Eight work for elderly people?"

Older adults in MAT have financial and housing needs that providers are not always capable of assisting with and providers reported feeling bad they are unable to help their patients find the resources they need to remain in treatment.

One provider wanted a protocol or checklist for older adults so they could make sure they were providing the proper care.

"We need some type of protocol that this is what we go through with this patient, and try to check all these boxes so that at least we've done the most we can do…there's no protocol in place that these are all the things we go through with this aging population, and these are the steps that we need to do to fix it."

In this checklist, they wanted to make sure the patient had access to a primary care physician, transportation and financial assistance as needed. These practical skills would improve the quality of care they could give to older adults in MAT.

Query analysis.

Several matrix queries were used to look at the differences in responses by demographics. A matrix query is designed to show intersections of coding based chosen characteristics. Demographic data about the providers that was gathered during the interviews was added into NVivo 11 and paired with the corresponding provider responses. Five total queries were run using the following demographic data: age, education level, position at the clinic, years of experience in MAT, and years of experience working in the substance abuse field. There were no significant differences in any of the matrices.

Three main themes emerged from the data related to provider training: 1) a desire to know more about the general overview of aging, 2) the need for local resourcing, and 3) a request for additional practical skills including advance care planning and grief education. These themes were used to outline the content of the curriculum.

Curriculum

Using the themes that emerged, we identified four main topics that we expanded into two 50-minute modules for the training program. These topics were an overview of aging, advance care planning, grief and bereavement and a list of resources. The modules can be given in any order and can be given on the same or different days as time permits. See Table 2 for curriculum objectives.

Module 1: Aging 101 & Resources – this 50-minute module will define aging and introduce the physical, psychological and social changes that occur with age. It will discuss how society views aging and the challenges aging presents to providers who care for older adults.

Module 2: Advance Care Planning & Grief – this 50-minute module provides an overview of advance care planning in Georgia, which includes an activity on how to introduce and fill out advance care directives with patients. This session also describes the grief process and how to best provide care to a patient who is grieving.

Table 2
Goal and Objectives for Modules 1 and 2 of the Curriculum

Module #	Goal	Objectives
1	To educate participants on the process of aging and explain what changes providers might see in their older patients.	By the end of module 1, participants will be able to: 1. Define aging and how our society view aging 2. Explain physical, psychological and social changes that occur over time 3. Identify components of "normal" vs. "abnormal" aging
2	To educate participants on advance care planning and the process of grieving	By the end of module 2, participants will be able to: 1. Explain what advance care planning is 2. Explain how to fill out the Advance Care Directive and DNR forms 3. Identify stages of the grief

Pilot Testing

The curriculum was implemented as a pilot training on March 27th, 2019 at the Wesley Woods Health Center to a group of 12 opioid treatment providers, mostly from the Atlanta metro area. The training was held in a conference room with a large circular table, a computer and large tv screen to project the PowerPoints. Modules 1 and 2 were given in one session with a lunch break in between and the curriculum was presented exactly from the original development plan.

The participants had varying backgrounds and experience with MAT. One participant did not fill out the demographic questionnaire, but of the other 11 participants, 10 had a master's degree. The time spent working in MAT ranged from 2 months to 26 years and 6 out of the 11 had been working in MAT clinics for 10+ years. When asked about previous training in aging, a few noted they had taken courses for their undergraduate or master's degree but have not had any formal training since. After working for so long in MAT, participants still had not had opportunities to receive formal training on aging and even noted that this topic isn't generally talked about.

Many of the participants knew each other from previous trainings, conferences or employment. The participants were very engaged in the material and participated openly in discussions. They expressed their appreciation for the ability to talk about aging because it typically gets overlooked but is so important because over half of their patients are older adults. They had particularly fruitful discussions around ageism and the language our society uses to describe older adults.

Pre/Post-Test and Evaluation

Scores for pre-tests were very high, many scoring either a 5 or 6 out of 6 correct which made it difficult to gauge how well they understood the material or if some of it was even

necessary to cover in the first place. For both modules, most participants scored either the same or better on their pre/post-tests with only a few scoring lower on the post-test. Lower scores were primarily on Module 2 regarding a question about who is allowed to sign as a witness on advance care directive forms.

An evaluation was filled out by all the treatment providers present at the training which can be found in appendix D. Of the 11 providers who filled out an evaluation all said they would recommend this training to other OTP providers. Providers reported in the evaluation that the training was very informative and that they enjoyed the discussions and interactions with each other. Providers recommended that the following topics be added or elaborated: 1) more examples of how the aging process can create barriers in treatment, 2) more on cultural awareness, 3) discussion of how long-term methadone use affects older adults, 4) and dilemmas in medication management for older adults. Providers had very few recommendations on how to improve the current training curriculum and how it was delivered other than asking for more specific examples.

Discussion

Curriculum Development

The primary goal of this study was to develop a training curriculum for opioid treatment providers in Georgia around aging and age-related considerations for older adults in MAT. Currently, providers are not receiving specialized training for older adults. This is partially due to the fact that there is limited research on how older adults age in MAT and what kind of specialized care they will need in the future.

The qualitative interviews provided valuable insight into what providers experience on a daily basis with patients and where they wanted to see more training about their older cohort of patients. Since the providers were from different regions in Georgia and had different educational backgrounds, the interviews gave varying perceptions and opinions. When asked why staff don't talk about advance care planning with their patients, one staff admitted it was because it made them uncomfortable. Another staff said they lead a coping and loss group where patients can talk about end of life care, advance directives, etc., but this is uncommon among OTPs. Our society has a negative view of aging and tends to avoid conversations around death and dying so it can be difficult for opioid treatment providers to address these matters with patients. For this reason, some providers requested training on grief and advance care planning so they are better able to navigate these difficult conversations with older adults in MAT.

Pilot Testing

Collaboration with and support from the Opioid Treatment Providers of Georgia (OTPG) was a big help in getting the word out about the pilot training session. OTPG is a non-profit organization focusing on opioid use disorder and their treatment options. It consists of a large

coalition of treatment providers, counselors and members of the community interested in improving MAT in Georgia. Because a large number of providers are members of OTPG, many of the providers at the pilot session knew each other which helped foster a comfortable atmosphere and ease in discussions.

The pilot training was well-received by the providers. They were very interactive and engaged in the material being presented. Some of the feedback on the evaluations was that they would have liked to see more information directly related to barriers for older adults in MAT. These specific topics did not come up during the interviews that were conducted with providers and, while making the curriculum it was determined that it might be repetitive to give them information that they are experiencing every day with their patients. In order to avoid restating the barriers they see in their older adults face in MAT, the curriculum could include case studies or summaries of the limited research that is currently available about older adults in MAT.

Some providers did had lower scores on the post-test than they did on the pre-test. This mainly occurred on the second module with one question in particular. The question asked if an individual's power of attorney was able to sign as a witness on their advance care directive form and many people marked that it was true, which was incorrect. The advance care planning section of the training began by using the term "power of attorney" and then switched to "health care agent" because that is how the Georgia Advance Care Directive uses it on their form. Thus, it is possible that providers may have thought they were referring to separate people. When requirements of who is and is not allowed to be a witness were discussed in the training, providers were informed that a health care agent could not be a witness, conflating the two terms. Definitions of the two terms and the review of who was allowed and not allowed to sign as a witness could have been more explicit for clarification.

Strengths and Limitations

Strengths.

A strength of this study was collaboration with OTPG and their support for the study. They helped to gain the support of MAT clinics throughout Georgia and reiterated the importance of this research for the care of older adults in MAT. They also granted 2.5 continuing education credits for the curriculum which validated the need for this education among opioid treatment providers in Georgia.

Another strength was having the support from current opioid treatment providers and Dr. Bender, a Ph.D. in Gerontology, to provide insight and recommendations for the curriculum. The needs assessment conducted with opioid treatment providers set the framework for the curriculum and the pilot training with additional opioid treatment providers helped focus the content in the curriculum to what is useful for providers in practice. Dr. Bender has given lectures on aging and has a particular interest in MAT, so she was able to provide valuable and up-to-date resources for the development of the curriculum.

Limitations.

One limitation of this study was that the qualitative interviews with treatment providers were conducted for a larger pilot study so there were only a few questions dedicated specifically to the training needs around aging. Providers were asked what training they received in the past, what perceived gaps there are in training, and where they wanted more training, but conversations typically did not last long about training since there was so much else in the interview guide to discuss. Some of these interviews were given by student research assistants

with minimal experience, there may have also been missed opportunities for additional probing about training.

Another limitation is that the pilot training was only available for up to 20 providers and was given in the middle of a weekday. It would have been useful to do more than one pilot study to have a wider range of feedback from providers. Having an additional pilot study outside of the Atlanta-metro area on the weekend would have been more accessible for some providers who work during the week and live far from Atlanta. Only providers who were able to take time off from work were able to attend the training since it was in the middle of a weekday.

Recommendations

A recommendation for curriculum development is to have further revisions implementing evaluation feedback from the pilot training. It would have been useful to have a second pilot training using a revised version of the curriculum for providers and see how it was received after feedback from the first group. Recommendations for changes to the curriculum were listed above and include more specific examples of barriers older adults face in MAT and about the challenges of managing multiple medications. It would be very useful to have a pharmacist's perspective on drug-drug interactions and medication management for older adults with multiple chronic illnesses because that is one thing providers mentioned seeing frequently in their clinics. Cultural awareness came up in a couple of the provider interviews and as feedback on the evaluation so further revisions could include an entire section, possibly even a third module, around this topic.

A recommendation for curriculum implementation would be to have the training in several locations throughout Georgia and at the annual NAADAC conference. By having several

opportunities and locations to attend the training, the scope of providers reached would be much larger than if it were only offered in the Atlanta-metro area. The NAADAC conference is a well-known and well attended conference that would give treatment providers from all over the country exposure to this curriculum.

Conclusion

This curriculum is designed to educate opioid treatment providers about aging and practical ways to provide better care for their older patients enrolled in MAT. By taking this training, providers will have a better understanding of what physical, psychological and social changes occur in the aging population and can identify any unnatural symptoms of aging that may impact MAT. With an enhanced awareness of the aging population in MAT, the hope is that older adults will begin to receive better care and their treatment providers will be able to refer them to external resources when needed. This curriculum is one step closer to improving the care for older adults in MAT, but further research and awareness is needed to address the complex needs of the aging population in MAT and better serve this vulnerable group.

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Appendix A: An Introduction to Aging for Opioid Treatment Providers - Module 1

A Continuing Education Curriculum

Created By: Jessica Biser, MPH Candidate

For: Opioid Treatment Providers of Georgia

Introduction to Aging for Opioid Treatment Providers

A continuing education curriculum created by: Jessica Biser, MPH Candidate
For: Opioid Treatment Providers of Georgia

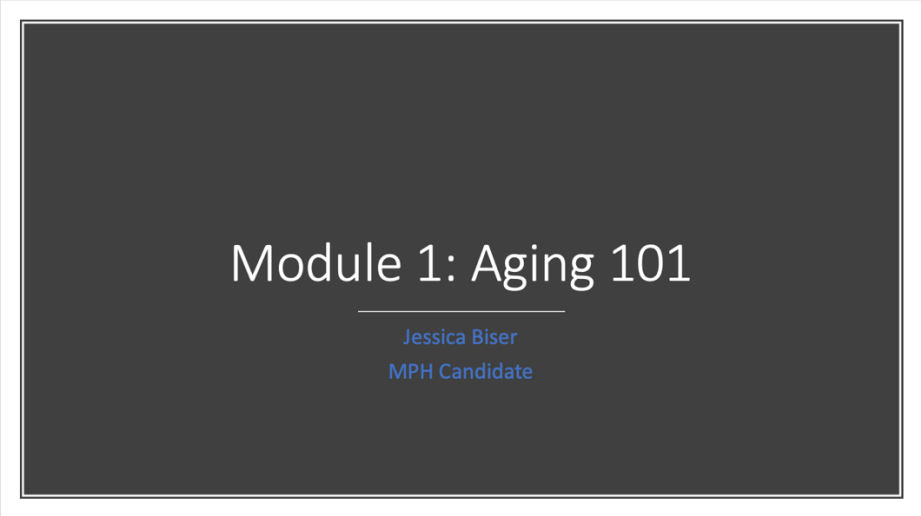
Introduction and Aim	This curriculum is intended to provide an overview of aging and other considerations while caring for older adults in MAT. It includes several different teaching methods (didactic lectures, classroom discussion etc.) to facilitate varying styles of learning. This curriculum aims to improve the knowledge base of opioid treatment providers in several key areas of aging health. In doing so we hope to improve the quality of care provided to older adults in treatment centers across Georgia.
Modules	This curriculum consists of the following two modules: 1. Aging 101 & Resources (50min) 2. Advanced Care Planning & Grief/Bereavement (50min)
Target Audience	The intended audience for this curriculum are opioid treatment providers in Georgia.
Setting	The ideal location for this curriculum would be during a CEU training course in Georgia. A laptop and PowerPoint projector should also be available for use.
Time Frame	Modules last 50 minutes each and do not have to be taught in the sequence laid out in this curriculum. They can be taught in one or two training days.

Module 1: Aging 101	
Time	50 minutes
Materials	1. Laptop, projector, and Module 1 PowerPoint slides 2. Pre/Post-test handouts 3. Aging handouts 4. Pens, pencils
Module Summary	This module will define aging and introduce the physical, psychological and social changes that occur with age. It will discuss how society views aging and the challenges it presents to providers who care for older adults. This will be accomplished through the administration of a pre/post-test and facilitated discussions.
Goal & Objectives	To educate providers on the process of aging and explain what changes treatment providers might see in their older patients. By the end of this module, providers will be able to: 1. Define aging and how our society views aging 2. Explain physical, psychological and social changes that occur over time 3. Identify components of "normal" vs. "abnormal" aging

Part 1: Introduction

Time	5 minutes
Materials	None

- The facilitator will introduce her or himself and lay out the schedule for this training.
- Explain to the providers that this first topic will be a description of aging and will review the types of aging, ageism and physical, social and psychological changes that older adults may encounter. The second topic will be a brief description of local resources.



Part 2: Pre-test

Time	5 minutes
Materials	• Pre-tests • Pencils

Explain to the providers that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the concepts, and the exact same test will be given at the end of the class.

- ***Handout pre-tests and pens***
- ***Collect pre-tests after completion***

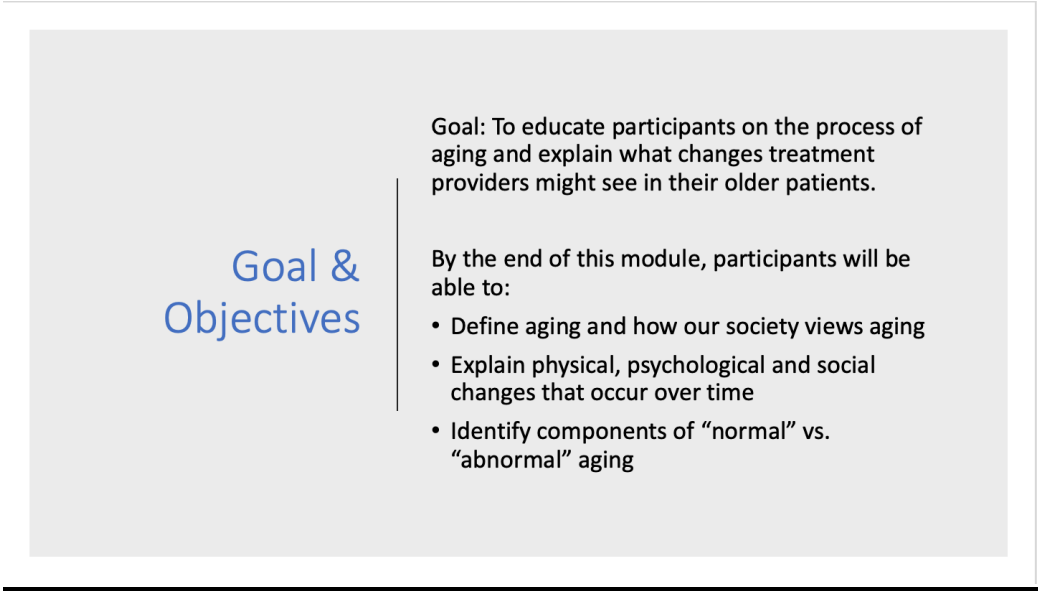
Part 3: Aging 101

Time	30 minutes
Materials	• Aging 101 handouts • Pencils • Module 1 PowerPoint, laptop, and projector

Goal & Objectives

The goal for this module is to educate you all on the process of aging and explain what changes you as treatment providers might see in your older patients.
By the end of this module, you should be able to:

1. Define aging and how our society views aging
2. Explain physical, psychological and social changes that occur over time
3. Identify components of "normal" vs. "abnormal" aging



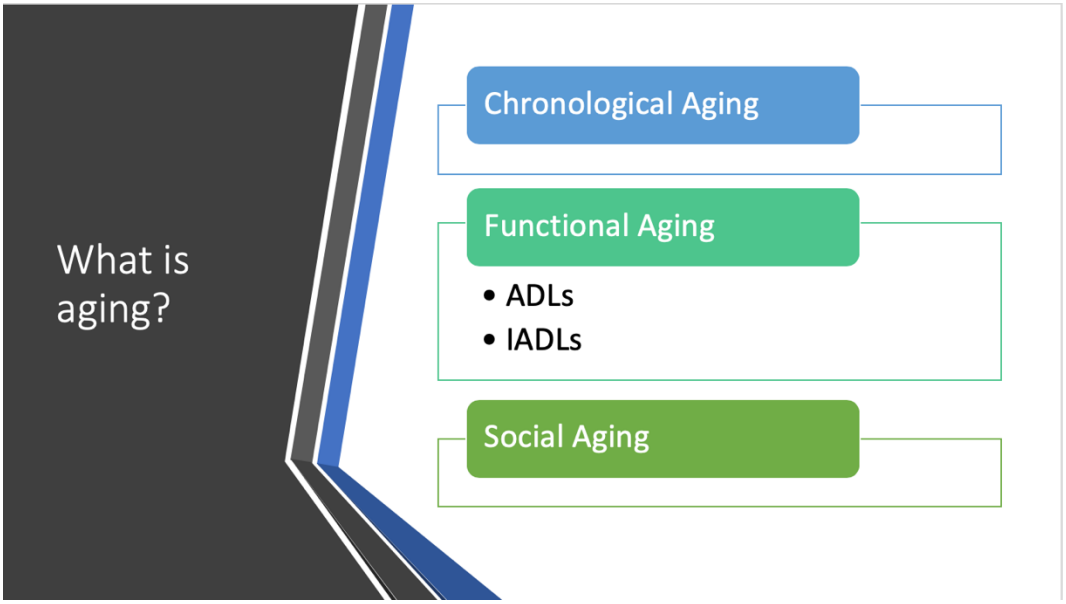
3a. Aging Defined

Ask providers: what is aging?

Aging can be defined in several ways.

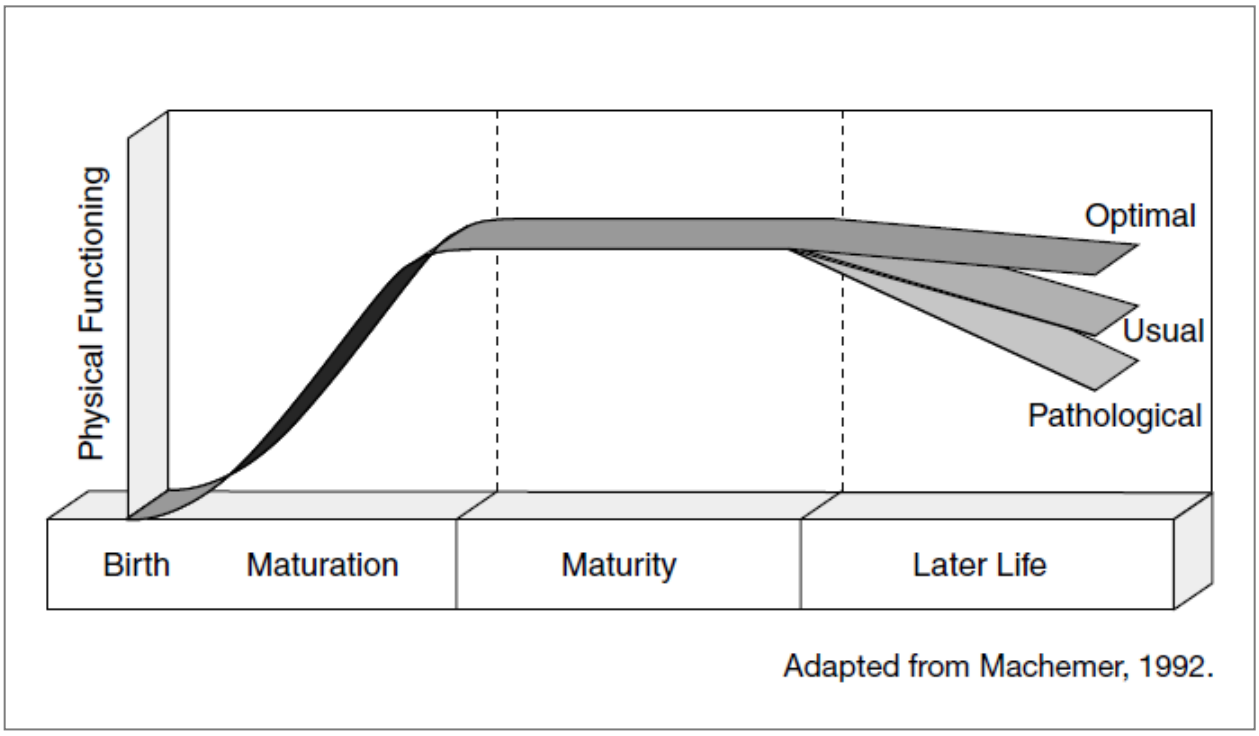
- Chronological aging is what we typically think of when we think of age. It designates the time since birth or one's age in years. Chronological age is used because having a number is useful for laws and policies, but not all 60-year-olds are the same.
- Functional aging is how your body changes as you age and how well you are able to perform activities of daily living.
    - Basic activities of daily living (ADLs): basic self-care tasks such as walking, dressing, using the bathroom, bathing and eating.
    - Instrumental activities of daily living (IADLs): skills that require more complex thinking such as managing finances, transportation, shopping, medication management and home maintenance.

  So functional aging is used to determine what your needs are at each stage of life (Morgan & Kunkel, 2016).
- Social aging is how society tells us we should age. It is related to chronological aging in the fact that society tells us that at a certain age we should experience certain life events. For example, at age 18, we're expected to graduate high school Around age 25 we should get married and start having children. We will elaborate a little more on this later when we talk about the social views of aging.
- Note that all of these stages happen together. It is difficult to separate them.

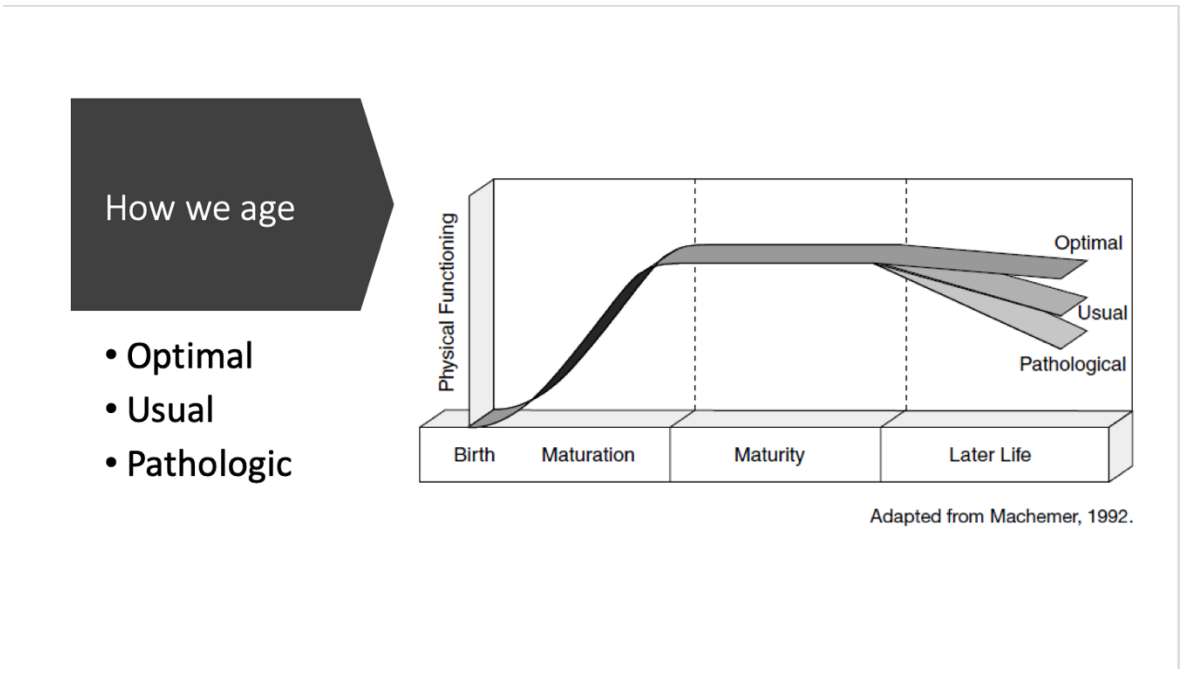


Then we have ways to describe *how* we age:

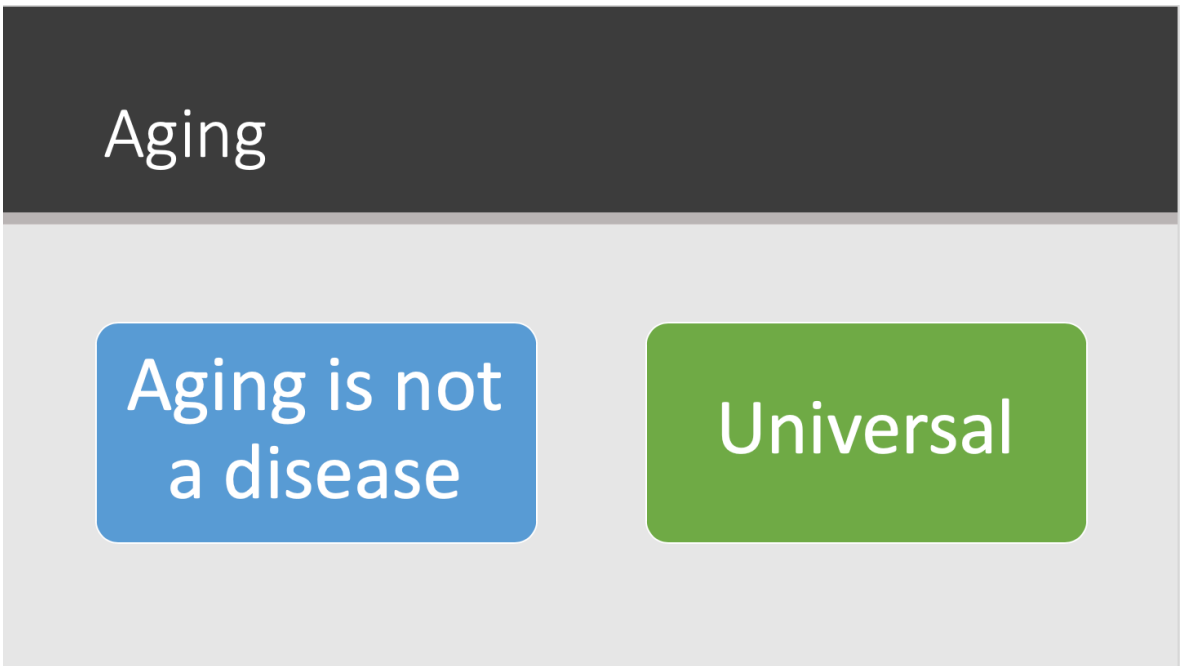
- Optimal Aging: when there is minimal loss of physical function
- Usual Aging: what we would think of as the average experience – mostly healthy but some experience with disease
- Pathologic Aging: defined by having multiple chronic conditions (Morgan & Kunkel, 2016).



(Morgan & Kunkel, 2016)



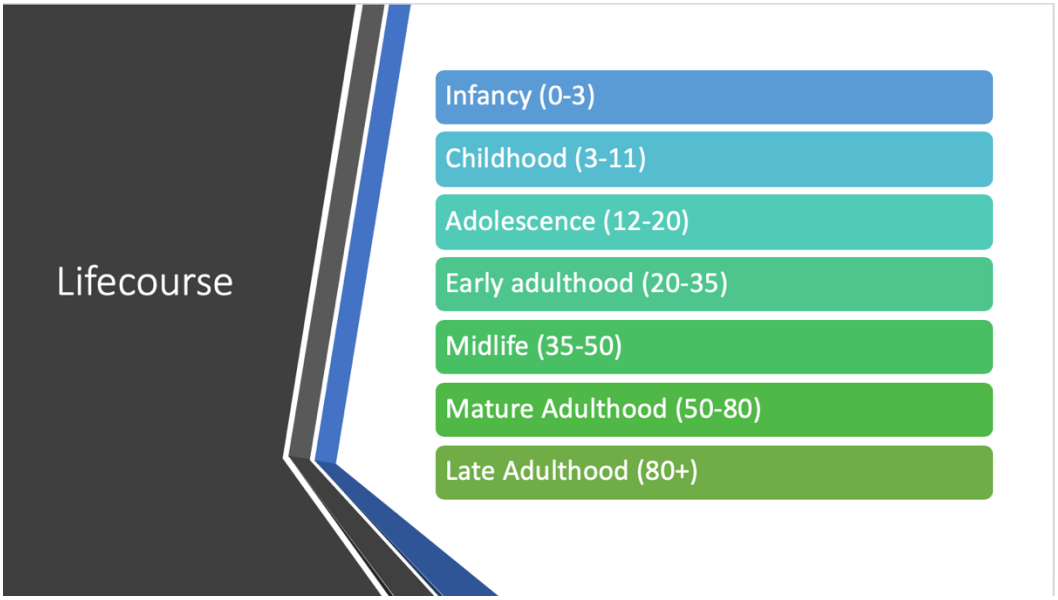
Aging is not a disease. As a society, we tend to resist the aging process, but whether we like it or not, we all age. It is a universal process that occurs at different rates and in different ways for each person.



These well-defined life stages are what you typically see in the psychology or other introductory courses you take in school. Going back to social aging, there are certain milestones of big life events that are expected to occur within each of these brackets. Society tells us we should get married during early adulthood, but for some people, this might happen sooner or later. Transitions between life events might look different for people.

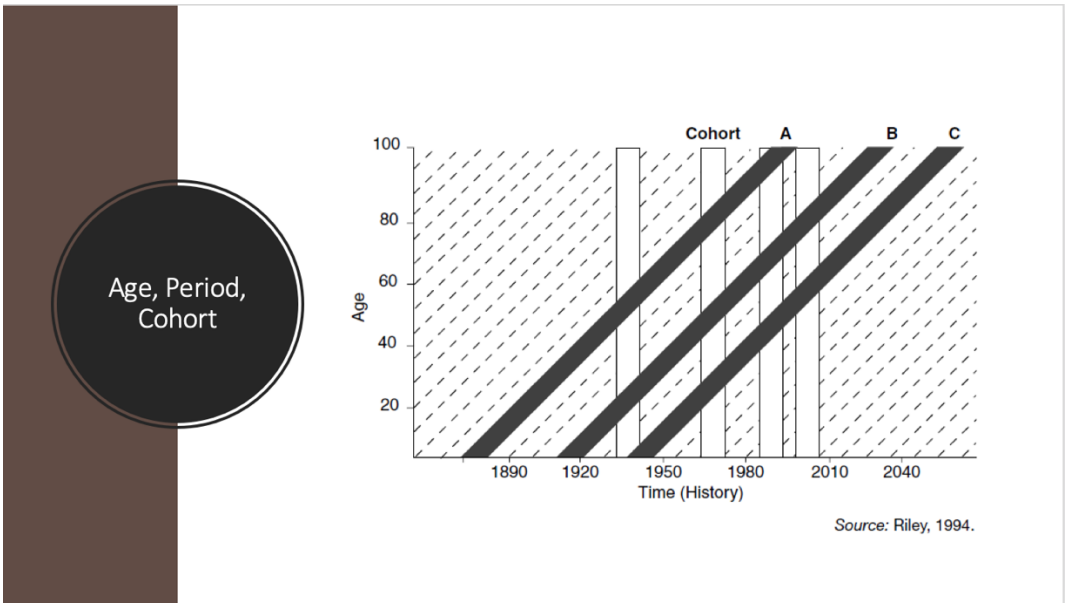
1. Infancy (0-3)
2. Childhood (3-11)
3. Adolescence (12-20)
4. Early adulthood (20-35)
5. Midlife (35-50)
6. Mature Adulthood (50-80)
7. Late Adulthood (80+)

You seem to have experience with the first few stages, but there is generally minimal training on the last two stages of mature and late adulthood which is what we'll be focusing on today.



We will briefly distinguish between age, period and cohort. Age is how old we are – chronological age. The definition of a cohort is a group of people clumped together based on similar characteristics. So, an age cohort is a group of people that were born within a certain timeframe and in this image, cohorts are the white vertical bars. For example, one cohort on this graph are all the people born between 1930 and 1935. Cohorts don't all have to be in a 5-year span, but a designated length of time. Finally, a period is all the external factors that happened during their lifetime that impacted their view of the world. It is the consequence of the factors over time. For example, the period of people who lived through the depression or WWII for example is very different than the people who did not. Those big external events can change how

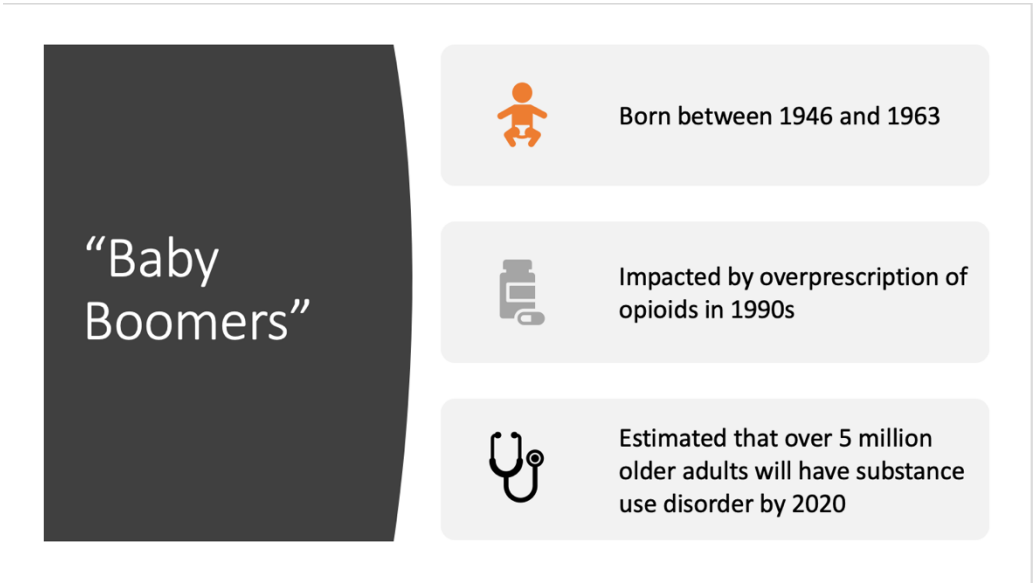
that group of people aged over time. All three of these are very intertwined but there are subtle differences.



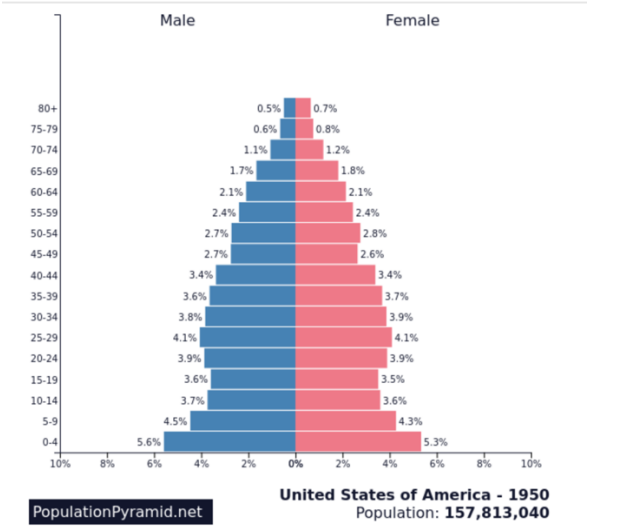
An age effect refers to a change that occurs as a result of advancing age; for example, declining health due to age. Period effect refers to the impact of a historical event on the entire society such as 9/11. And finally, the cohort effect refers to the social change that occurs as one cohort replaces another. For example, the baby boomers are replacing the previous "older adult" cohort and the experiences they encountered during the period of their life will change how they interact with the world and engage socially which could be very different from the previous "older adult" cohort.

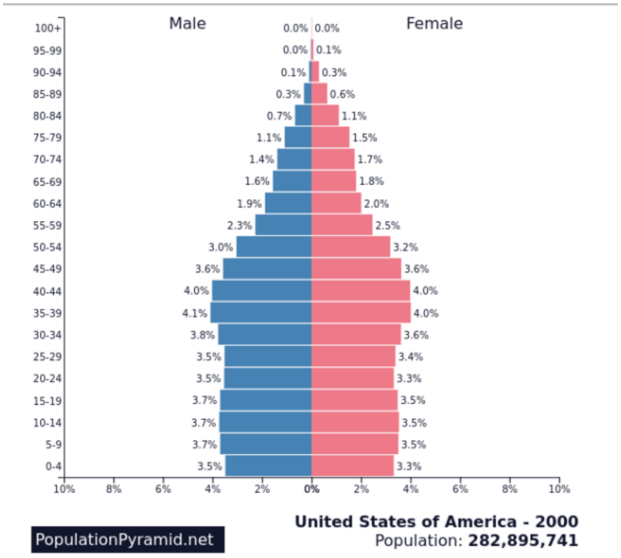
One example of a cohort we are familiar with is the "baby boomer" cohort – the group of people born between 1946 and 1963 (Morgan & Kunkel, 2016), but not every baby boomer will age the same. Currently, the "baby boomer" generation makes up a good portion of the older adults in the United States. There were about 76 million children born during this time (Himes, 2001). As scientific advancements contribute to longer life expectancies, this cohort is living longer, and we need to be aware of what their health needs are.

This generational cohort was impacted by the over prescription of opioids in the 1990's and also had a higher exposure to drugs and alcohol at a younger age which puts them at a higher risk for substance abuse (Chhatre et al., 2017). It is estimated that over 5 million older adults will have a substance use disorder by 2020 (Carew & Comiskey, 2018). As each year passes, there are more and more older adults receiving care in MAT programs but there is limited information on how people age in treatment.



The following graphs are a visualization of how the age of the population in the United States has changed since the 20th century. The first graph is from 1950, the second from 2000 and the third from 2019. As you can see in the graph from 1950, 10% of the U.S. population was people aged 0-4 years old and only about 1% of the population that was living to be 80+ years old. In the second graph, the biggest proportion of the U.S. population was around ages 35-45 and almost 4% of the population was 80+ years old. They even extended the graph past 80 since so many more people were living to this age. Finally, in 2019, you see that the proportion of younger adults is much smaller than it has been, and the biggest proportion of people are aged 55-65 years old.


Male
Female
80+ 0.5% 0.7%
75-79 0.6% 0.8%
70-74 1.1% 1.2%
65-69 1.7% 1.8%
60-64 2.1% 2.1%
55-59 2.4% 2.4%
50-54 2.7% 2.8%
45-49 2.7% 2.6%
40-44 3.4% 3.4%
35-39 3.6% 3.7%
30-34 3.8% 3.9%
25-29 4.1% 4.1%
20-24 3.9% 3.9%
15-19 3.6% 3.5%
10-14 3.7% 3.6%
5-9 4.5% 4.3%
0-4 5.6% 5.3%
10% 8% 6% 4% 2% 0% 2% 4% 6% 8% 10%
PopulationPyramid.net
United States of America - 1950
Population: 157,813,040


Male
Female
100+ 0.0% 0.0%
95-99 0.0% 0.1%
90-94 0.1% 0.3%
85-89 0.3% 0.6%
80-84 0.7% 1.1%
75-79 1.1% 1.5%
70-74 1.4% 1.7%
65-69 1.6% 1.8%
60-64 1.9% 2.0%
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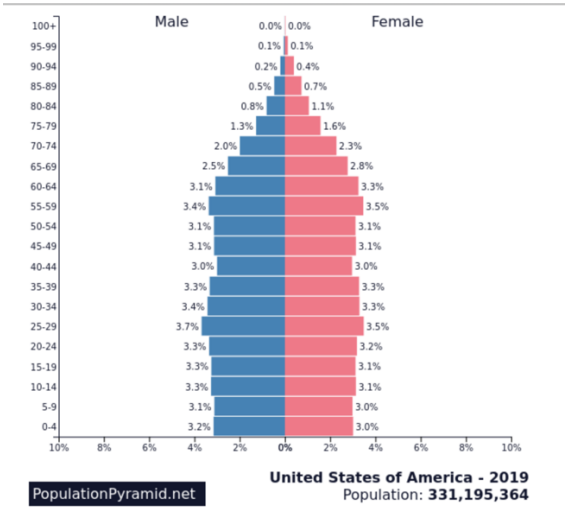
5-9 3.7% 3.5%
0-4 3.5% 3.3%
10% 8% 6% 4% 2% 0% 2% 4% 6% 8% 10%
PopulationPyramid.net
United States of America - 2000
Population: 282,895,741


Male
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100+ 0.0% 0.0%
95-99 0.1% 0.1%
90-94 0.2% 0.4%
85-89 0.5% 0.7%
80-84 0.8% 1.1%
75-79 1.3% 1.6%
70-74 2.0% 2.3%
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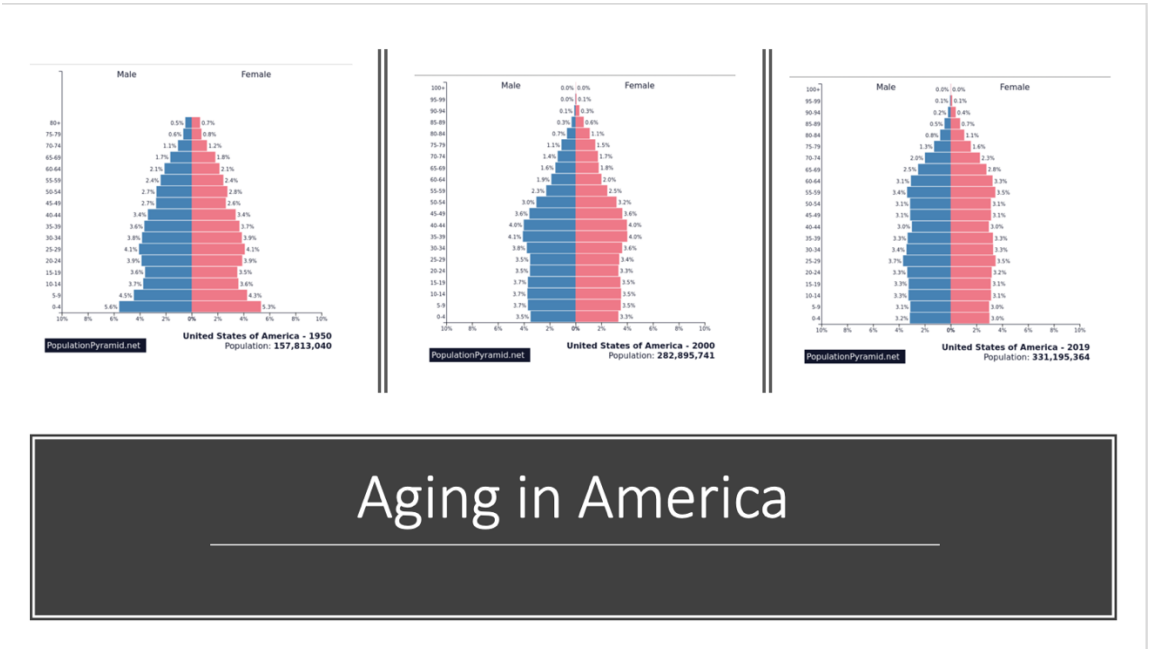
5-9 3.1% 3.0%
0-4 3.2% 3.0%
10% 8% 6% 4% 2% 0% 2% 4% 6% 8% 10%
PopulationPyramid.net
United States of America - 2019
Population: 331,195,364

(Himes, 2001)



From a physiological perspective, aging is the inability for cells to grow and function adequately. There are many factors influence aging:

- Environment:
  - Where a person lives matters. A person can be exposed to harmful toxins or chemicals through food, water and the air. This could include pesticides from food or smoke in the air from cigarette smokers or from factories. All of these can alter cell formation and growth.
- Genetic:
  - Having a genetic predisposition for certain chronic conditions or life-limiting illnesses can put some people at a higher risk for being in the "pathologic aging" category versus usual or optimal.
- Lifestyle: A researcher describes lifestyle influences as 'motion versus emotion'.
  - Motion, or movement, controls our body systems. Not only does a sedentary lifestyle put you at a high risk for many chronic conditions, but when you don't exercise, your muscles let out a steady trickle of chemicals that tell your cells to decay. Decaying cells is how we age (Lodge, 2007).
  - Emotion also influences cells. Emotions such as anger, stress and loneliness negatively affect cells and their ability to function (Lodge, 2007).

3b. Societal Views

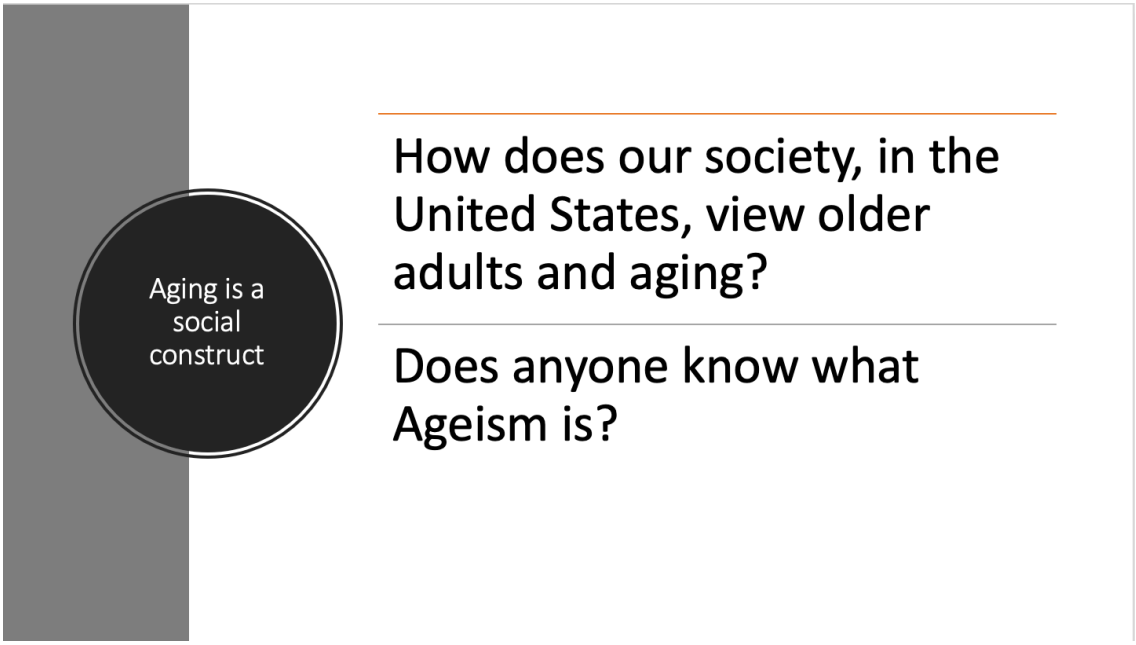
-Activity: Ask providers to list stereotypes for the following age categories and then discuss as a group

- ***Young***
- ***Middle-age***
- ***Young old***
- ***Old old***

Based on these stereotypes that you came up with, you can see how aging is a social construct.

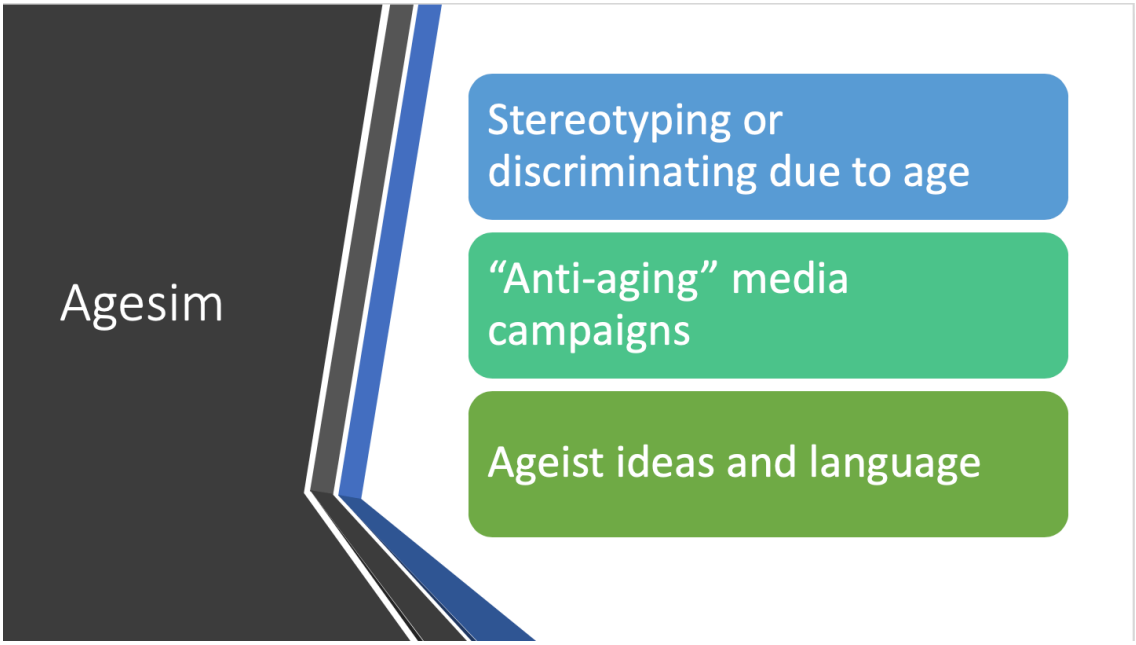
-Ask providers: How does our society, in the United States, view older adults and aging?
****Probe with: What is the first thing you think of when you hear the term 'older adult'?***

-Ask providers: Does anyone know what ageism is?



Ageism is the stereotyping and discriminating against people because of their age.

In our society, aging is bad; for example, ageist ideas have been imposed on us by the media with "anti-aging" campaigns and the language we use around aging usually has negative connotations. I'll show a few examples on the next slides. Finally, we use ageist language that can be hurtful and we may not even be aware of it – which I'll also give examples of later on (Pipher, 2002).



Some examples of ageism are birthday cards.
-Instructor read the birthday cards aloud

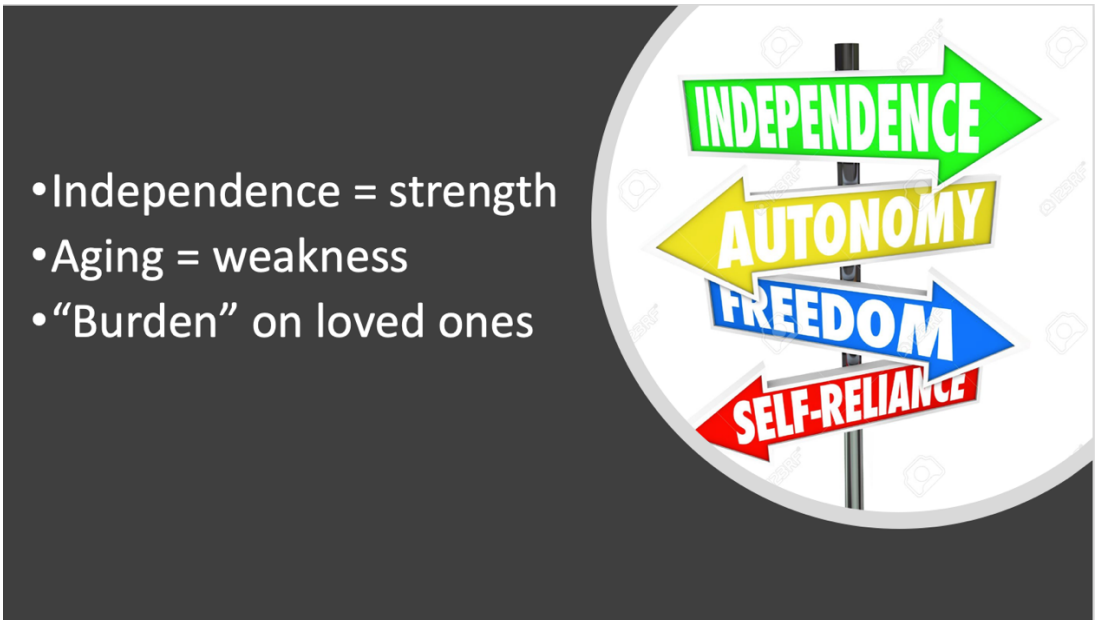
Then we have ageism in tv, magazines and a large assortment of beauty products. Starting as children, we see and hear messages that tell us that being old means being unhealthy, lonely and have poor memory.

Ageism in the Media

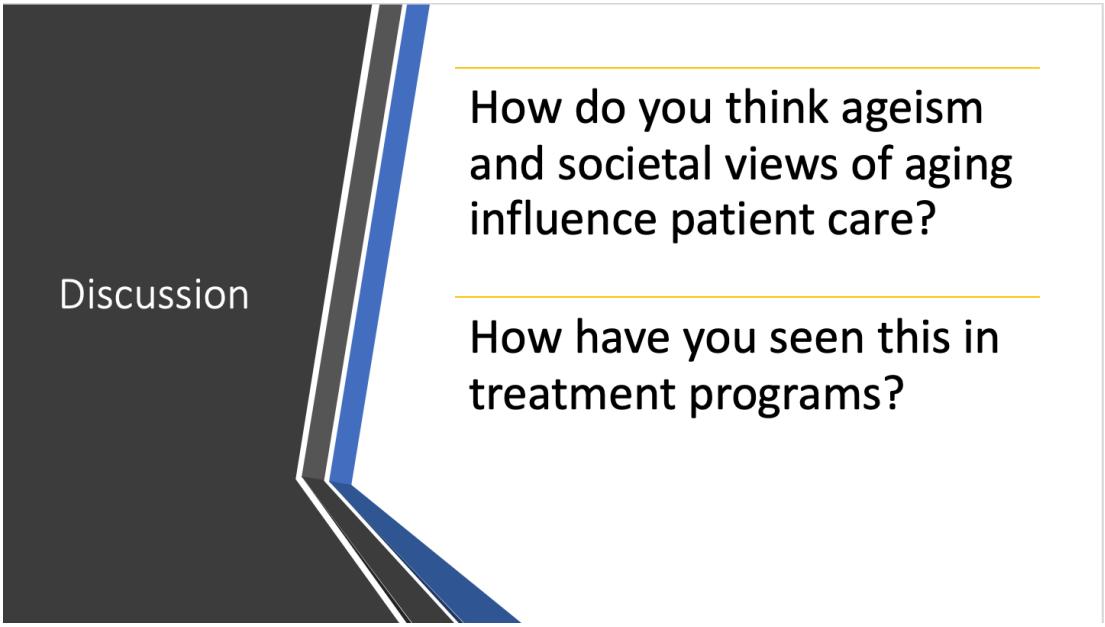
Some ageist comments (SeniorLiving, 2018):

- Offensive descriptions: Old-timer, spry, geezer, over the hill
  - These are obviously hurtful adjectives to describe older adults
- Endearments: sweetie, honey, dear, darling
  - They may seem like nice things to say but can be very condescending and disrespectful to older adults.
- Generalizations: “old dogs can’t learn new tricks”
  - Generalizations are a form of stereotype. You can’t assume all members of a cohort are the same.
- Characteristics: “a quick-witted 85-year-old”, “Wow! She’s 75 and still takes online classes”, “She is 80 years young”
  - The use of “unlikely” characteristics to describe older adults gives the impression that they are not able to be ‘quick-witted’ or capable of doing certain tasks anymore
- Assumption of weakness: “you shouldn’t be doing that anymore”, “I’m glad you can still walk up the stairs”
  - Not all older adults experience physical decline. Putting limitations on loved ones and making decisions for them takes away their autonomy
- Oversimplifying, speaking slowly and high-pitched voice
  - Barring any cognitive decline, older adults do not experience any changes with their communication. There is no need to speak more slowly or in a high-pitched voice as it only makes them feel unwise and childlike

Americans have an obsession with independence and highly value autonomy. We associate independence with strength and aging with weakness, so it becomes difficult for older adults to ask for help. Older adults would rather ask strangers for help than to 'burden' their loved ones. There is no graceful way to transition from a life of independence to relying on others in daily life.



-Ask providers: How do you think ageism and societal views of aging influence patient care?
*****Lead discussion of how they see this happening in the treatment programs***



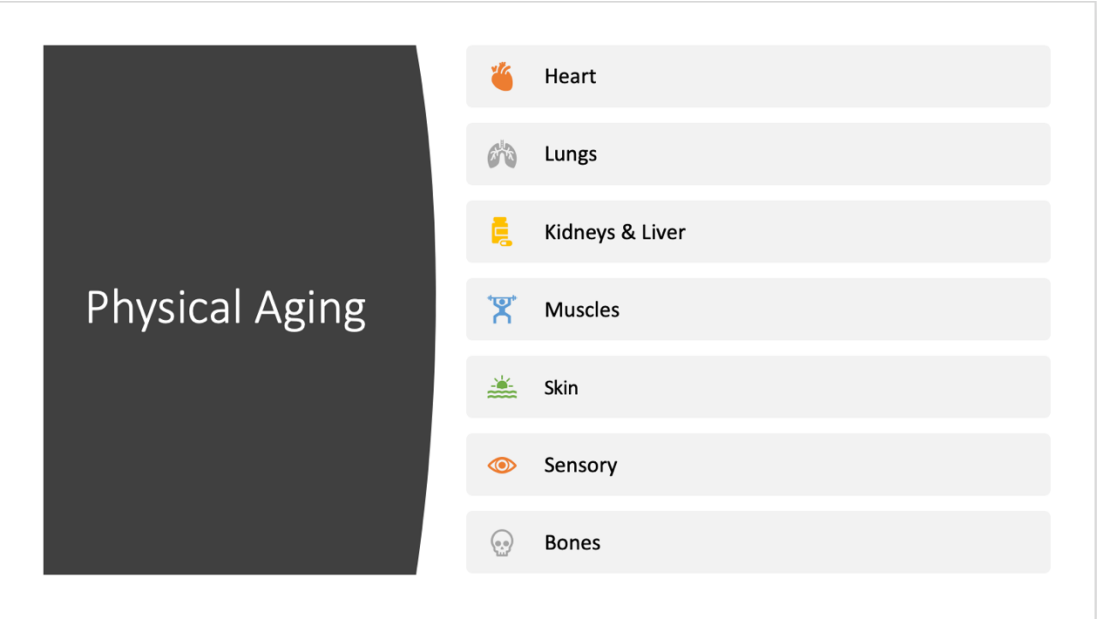
3c. Physical, Psychological and Social Changes

Now, let's focus on more specific changes you might see in some of your older patients.

Physical Changes: (Androus, Burke, Lee, & Spano, 2018)

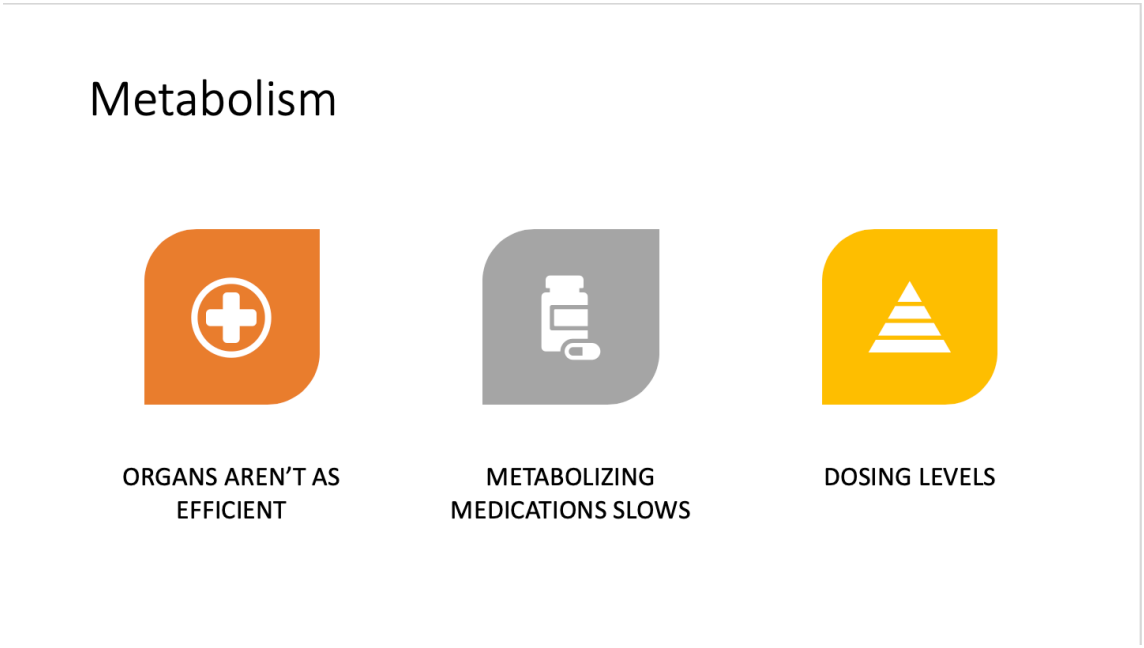
1. Heart
   As we age, our cardiac output falls from about 3.5 L/min to about 2.5 L/min meaning our hearts have to work harder in order to keep up the same level of function.
2. Lungs
   Pulmonary function is reduced; our residual volume - the amount of air left in the lungs after exhale - increases about 20% between 30-80 years old. A have a diminished cough reflex combined with decreased natural protection from the immune system makes respiratory infections more likely to occur.
3. Kidneys & Liver
   Both kidney and live function decreases with age.
4. Muscles
   Decrease muscle tone and strength which can reduce mobility. On average, muscle strength hits a peak at about 35 years old and slowly declines from then on. At age 80, muscle strength is similar to when you were 12-years-old.
5. Skin
   With age, there is a loss of skin turgor and elasticity, thinning and increased fragility, wrinkles, age spots, faded and grey hair, dry skin and hair
6. Sensory
   Loss of sensory functions including vision and hearing; slower reaction times

7. Bones
   Bones become more brittle and joints begin to degenerate. Brittle bones combined with mobility impairment puts older adults at a higher risk of falls. Falls are the leading cause of injuries and injury-related deaths for adults 65+.



Metabolism

- Metabolism slows because our organs aren't as efficient. The liver is less able to break down toxins, the heart is less able to regulate pressure and fewer kidney cells are functioning for filtration. This means that some medications may not be broken down as efficiently, leaving higher concentrations of medication in the body.
- Some research indicates that we should watch dosing levels with older adults because they will metabolize drugs differently but there is currently limited research in this area, especially when it comes to MAT.



With all of these physical changes, it is not surprising that older adults develop other health issues. Over 90% of older adults have at least 1 chronic condition and about 75% have two or more (American Psychological Association, 2019). In the pilot study Dr. Bender is working on, patients have an average of 5 chronic conditions with a range of 0-9.

Ask providers: what kinds of chronic diseases do you seen in your patients?

Here is a list of some of the most common chronic diseases among the general population.

Common Chronic Diseases (Hooyman, Kawamoto, & Kiyak, 2015).
1. Cardiovascular Diseases
Coronary heart disease: narrowing of cardiac vessels
Hypertension: high blood pressure
Hypotension: Low blood pressure

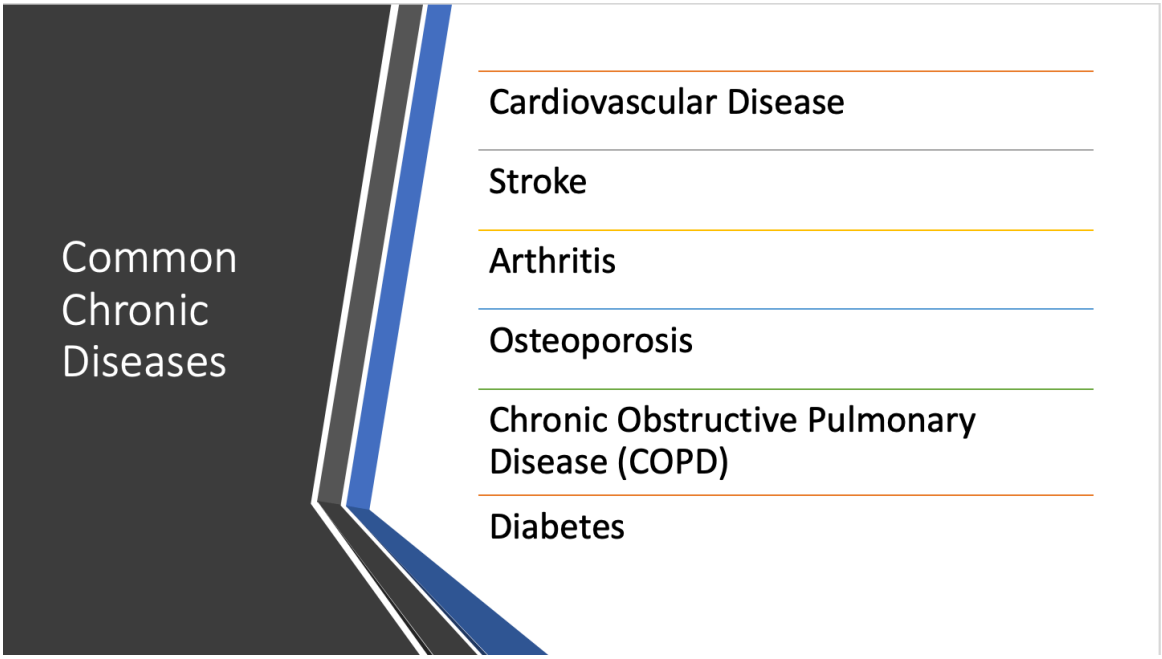
2. Stroke
Strokes happen when a portion of the brain has no blood flow. Interestingly, African American men are at highest risk for strokes, but after age 75 women across all races are at highest risk

4. Arthritis
Roughly half of older adults have some level of arthritis and, depending on severity, can cause limited daily activity. There are two main types:
-Rheumatoid arthritis: chronic inflammation of membrane lining joints and tendons, causes limited range of motion
-Osteoarthritis: gradual degeneration of joints subject to stress (hands, knees, hips, shoulders)

5. Osteoporosis
Osteoporosis is characterized by bone loss with brittleness

6. Chronic Obstructive Pulmonary Disease (COPD)
COPD is a lung disease where there is constant constriction of the airway that makes breathing difficult. Includes chronic bronchitis, asthma and emphysema, all of which cause damage to lung tissue. COPD increases with age and develop slowly

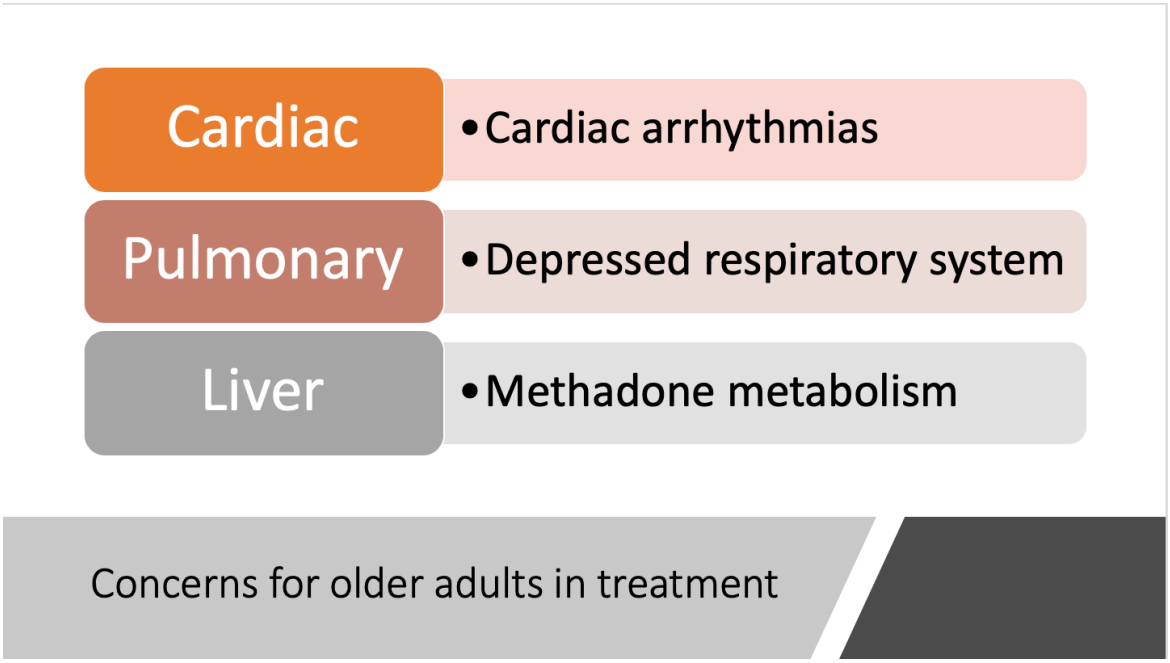
7. Diabetes
insufficient insulin production by the pancreas leaving high levels of sugar in the blood



As you likely know, the most concerning changes for patients in treatment are cardiac, pulmonary and liver functioning with relation to methadone.

- Studies have shown that methadone can cause cardiac arrhythmias.
- Opioids can depress the respiratory system, so someone who has a respiratory illness can react negatively to methadone.
- As mentioned previously, metabolism slows which could leave methadone in the body longer than expected

But remember, there is limited information in this area on how people age in treatment and what the implications are for long-term methadone use.

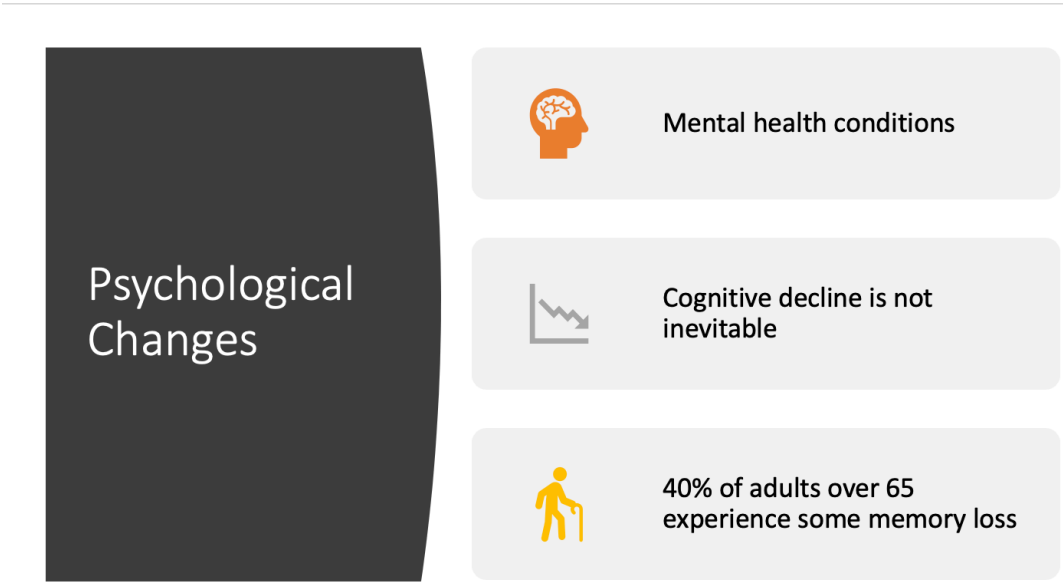


-Ask providers: Are there any questions about physical changes before we move into psychological and social changes?

Psychological Changes:

Mental health conditions, such as depression, occur at higher rates in older adults. Depression and anxiety are also more prevalent among drug users meaning older adults with OUDs are more vulnerable to mental health changes over time (Maruyama et al., 2013). One common reason for anxiety among MAT patients can be attributed to being on medication long-term. Some patients don't want to be on medications and feel anxious that they may need to be on methadone for life, especially because of the **negative stigma** that will follow.

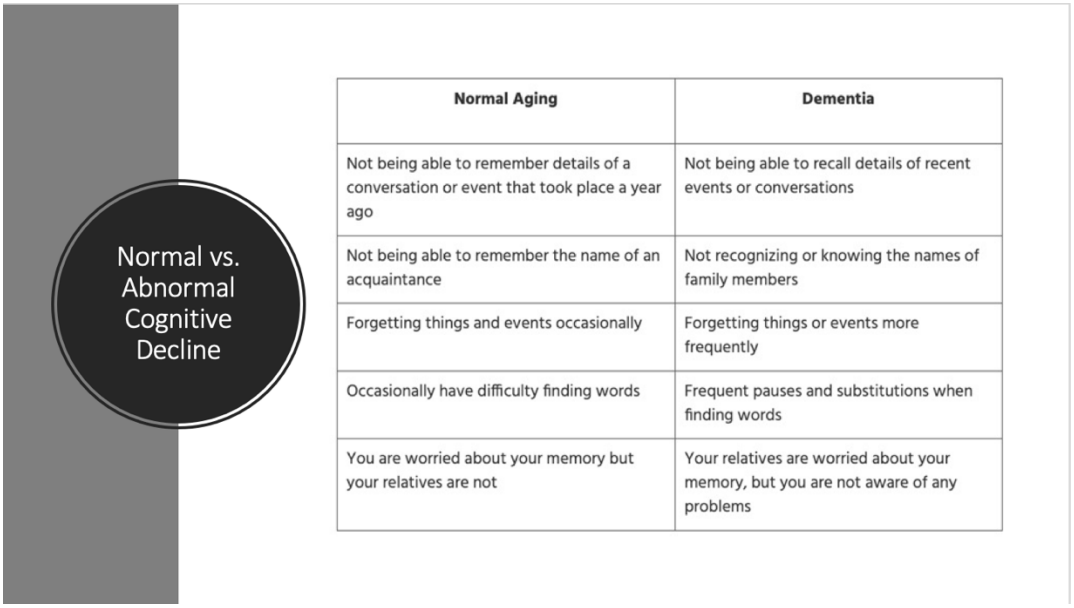
This negative stigma piece is huge and can impact the treatment patients receive in MAT and their psychological response to it, especially if they are facing multiple stigmas. For example, a patient may experience stigma for having an addiction in the first place, for taking methadone, for their age, and possibly stigma around a co-occurring mental or physical health condition. Cognitive decline doesn't occur in everybody, but about 40% of adults over 65 experience some memory loss (Alzheimer's Society, 2018). Some normal and abnormal signs of cognitive aging are listed in the table below. Note that this is not a diagnostic tool, but signs to be aware of in patients. If you are worried about a patient's memory, refer them to their primary care physician for a check-up.



-Instructor read through the table

Normal Aging	Dementia
Not being able to remember details of a conversation or event that took place a year ago	Not being able to recall details of recent events or conversations
Not being able to remember the name of an acquaintance	Not recognizing or knowing the names of family members
Forgetting things and events occasionally	Forgetting things or events more frequently
Occasionally have difficulty finding words	Frequent pauses and substitutions when finding words
You are worried about your memory but your relatives are not	Your relatives are worried about your memory, but you are not aware of any problems

(Alzheimer's Society, 2018)

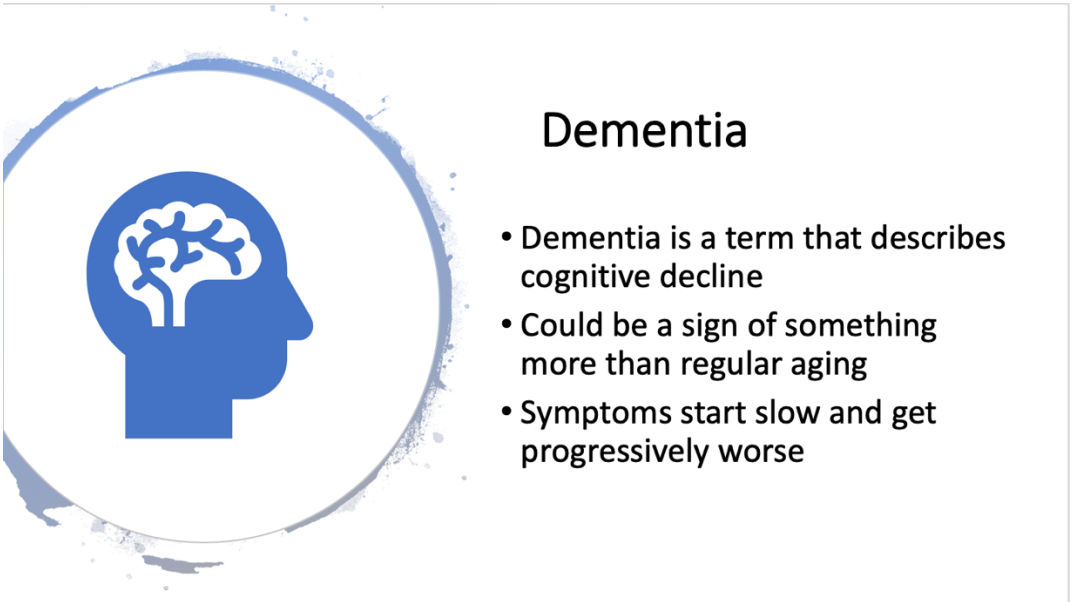


Normal Aging	Dementia
Not being able to remember details of a conversation or event that took place a year ago	Not being able to recall details of recent events or conversations
Not being able to remember the name of an acquaintance	Not recognizing or knowing the names of family members
Forgetting things and events occasionally	Forgetting things or events more frequently
Occasionally have difficulty finding words	Frequent pauses and substitutions when finding words
You are worried about your memory but your relatives are not	Your relatives are worried about your memory, but you are not aware of any problems

Dementia

Let's talk a little more information about dementia. Dementia itself is not a disease, it's an acquired condition. Dementia is a term that describes the persistent symptoms of cognitive decline. The symptoms could be caused from Alzheimer's disease or a stroke, among other things. As mentioned, serious mental decline is not necessarily a normal part of aging and could be a sign of something bigger happening.

The symptoms of dementia typically start slowly and can progressively get worse. There is no single test to determine if someone has dementia; it involves a physical examination, thorough review of the medical history, lab tests, discussion about daily behaviors etc. and even then, a physician may not be able to determine the exact type of dementia (Alzheimer's Society, 2018).

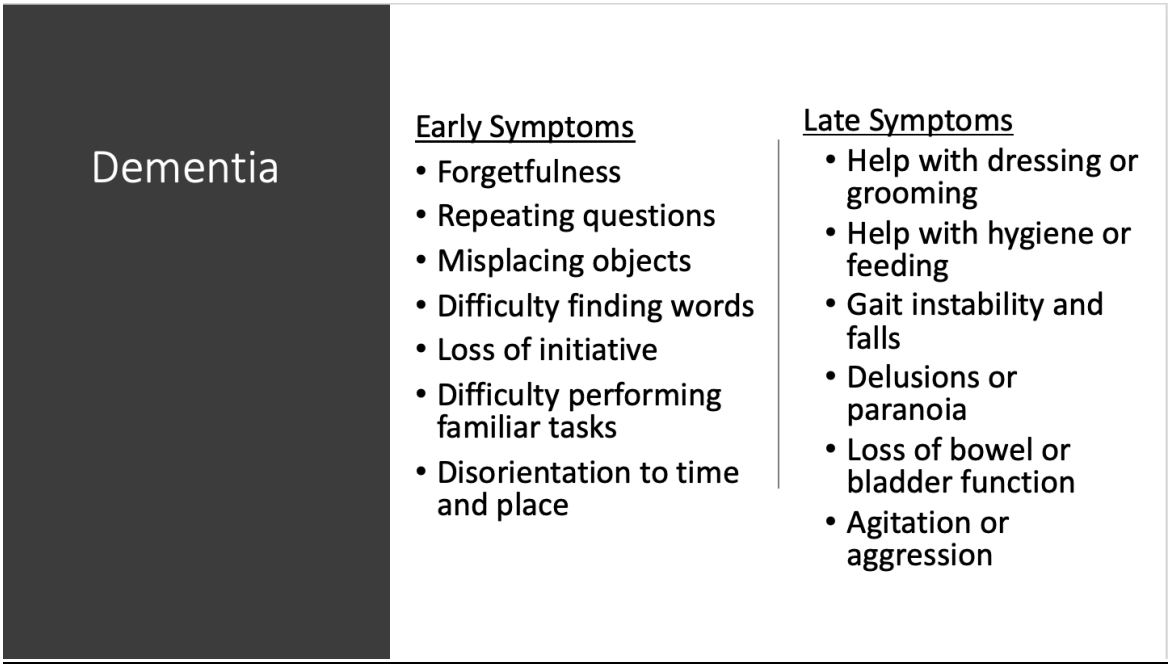


Early Symptoms of Dementia:

- Forgetfulness
- Repeating questions
- Misplacing objects
- Difficulty finding words
- Loss of initiative
- Difficulty performing familiar tasks
- Disorientation to time and place

Late Symptoms of Dementia:

- Help with dressing or grooming
- Help with hygiene or feeding
- Gait instability and falls
- Delusions or paranoia
- Loss of bowel or bladder function
- Agitation or aggression



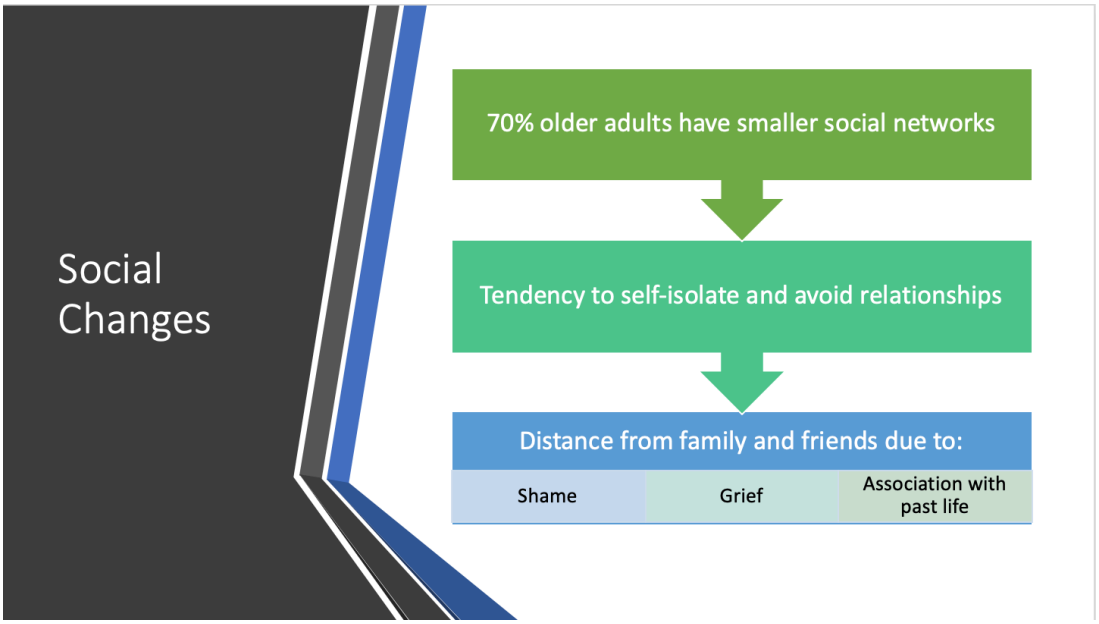
Social Changes:

Older adults have smaller social networks. Over 70% of older adults in treatment reported having poor social networks. Researchers found that older adults in treatment have a tendency to self-isolate and avoid relationships because of past experiences of grief, powerlessness and domestic violence (Gaulen et al., 2017; Smith & Rosen, 2009). These relationships also could be related to their life as a drug user and patients are trying to stay away from potential triggers.

Distance themselves from friends or family members due to:

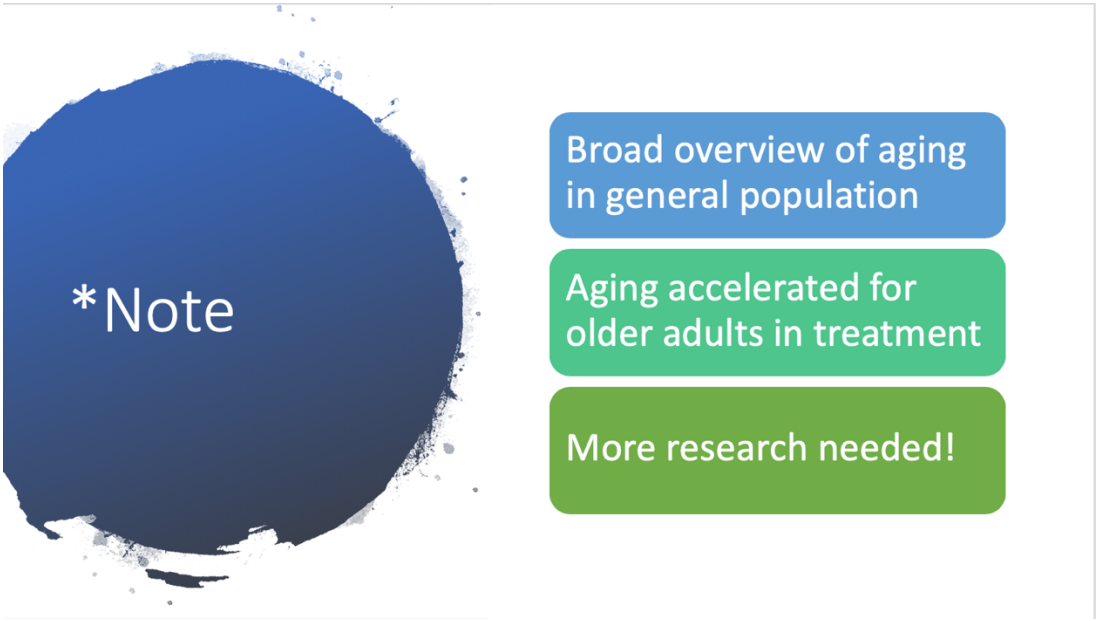
- Grief of wasting time they could have spent with children
- Feeling shameful of past substance use and/or being on methadone. The stigma around methadone is strong causing many people not to mention it to family or friends.
- Having guilt of their substance use history and hurting family members
- Friends can be associated with drug use so choose to cut them out

In the pilot study, we had a series of 10 questions to evaluate social support, but we had to scale it down because there were several cases where patients reported not having anybody. It seemed that patients with late onset of addiction had better social networks than patients who had early onset of addiction. Smaller social networks mean that older adults in treatment may not have the support they need emotionally, financially or physically in terms of mobility and access to transportation. Which brings us to the next section of this module where I will provide resources for you to connect your older patients with services to help with these limitations.



A Quick Note:

Note that we have given you a general overview of aging in the general population, but there isn't a lot of research looking at how people age in treatment. Aging is accelerated for older adults with long-term opioid use so some of the natural changes may occur sooner for your patients, but not much else is known in regard to the special needs of this population.

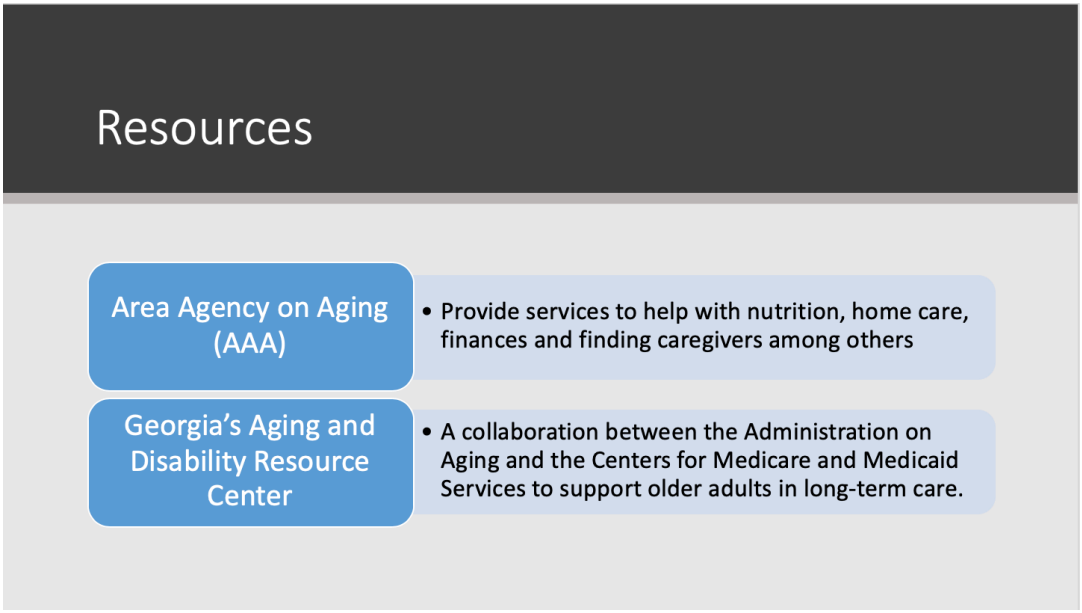


Part 4: Resources

Time	5 minutes
Materials	• Resource List handout • Pencils • Module 1 PowerPoint, laptop, and projector

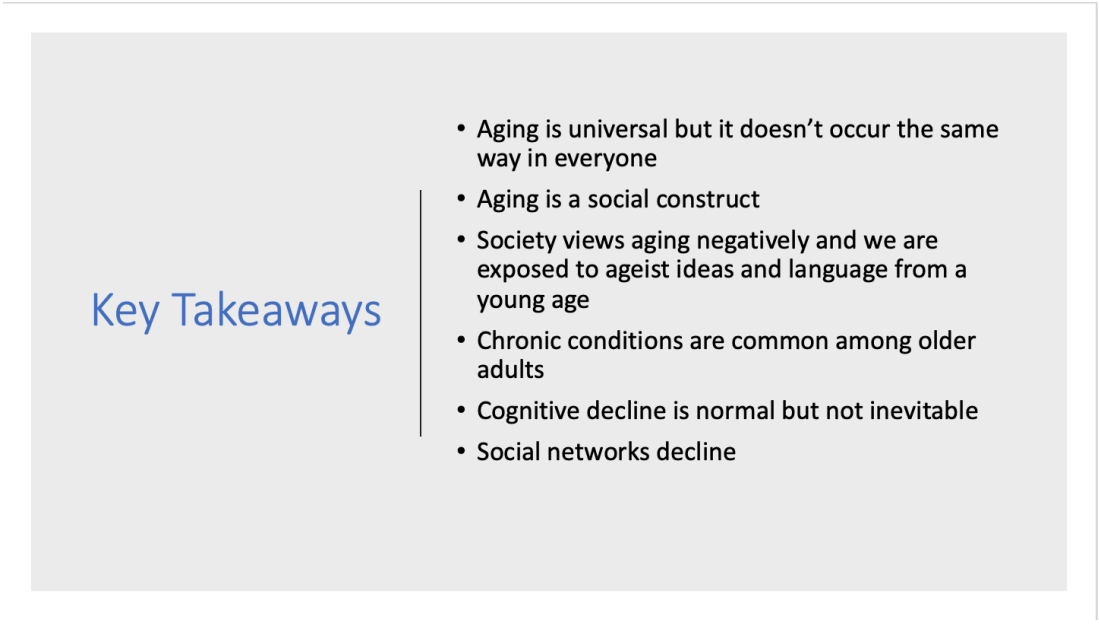
- ***Hand out list of resources and describe the top two which are related to and might be most useful for treatment providers in Georgia***

1. Area Agency on Aging (AAA). AAA is a part of the Department of Human Services Division of Aging Services. They have several locations throughout the United States and provide services to help with nutrition, home care, finances and finding caregivers among others
2. Georgia's Aging and Disability Resource Center: a collaboration between the Administration on Aging and the Centers for Medicare and Medicaid Services to support older adults in long-term care.



Some key takeaways from this module:

- Aging is universal but it doesn't occur the same way in everyone
- Aging is a social construct
- Society view aging negatively and we are exposed to ageist ideas and language from a young age
- Chronic conditions are common among older adults
- Cognitive decline is normal but not inevitable
- Social networks decline



Part 5: Post-test and Evaluation

Time	5 minutes
Materials	• Post-test and Evaluation • Pencils

- ***Ask for any last questions about the material covered in class.***
- ***Hand out post-tests and evaluation forms. Explain that the post-tests will not be graded.***
- *****If modules 1 and 2 are being presented on the same day, wait to give the evaluation out until after module 2.***
- ***Collect post-tests and evaluations when completed***

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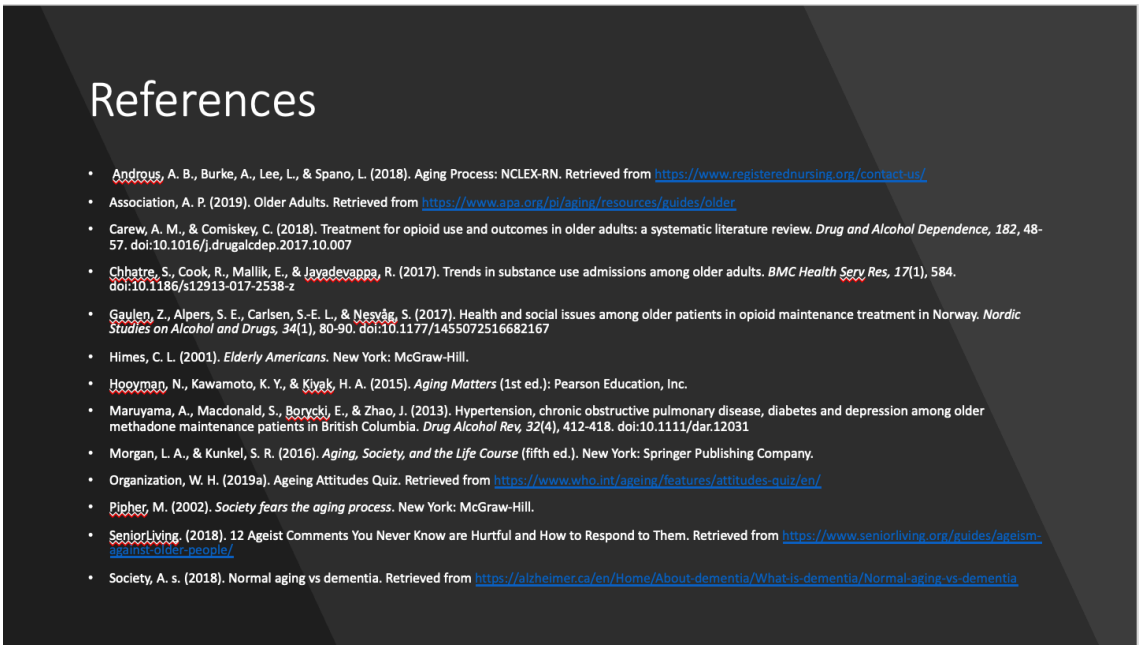

Appendix B: Handouts for Module 1 of Curriculum

Aging 101 Pre/Post-Test

Years working in MAT: _____

Level of education: _____

Number of patients at your clinic: _____

Please list your previous training in aging:

1. An older person is somebody aged 60 years and over
    a. True
    b. False

2. Functional aging refers to how well we are able to perform activities of daily living over time.
    a. True
    b. False

3. All older people are the same.
    a. True
    b. False

4. Poor health is inevitable in older age
    a. True
    b. False

5. Ageism means having negative attitudes and/or discriminating against people because of their age
    a. True
    b. False

6. I can be ageist and not know it
    a. True
    b. False

(World Health Organization, 2019a)

Aging 101 Pre/Post-Test KEY

Years working in MAT: _____

Level of education: _____

Number of patients at your clinic: _____

Please list your previous training in aging:

1. An older person is somebody aged 60 years and over
    a. True
    b. False

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    a. True
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3. All older people are the same.
    a. True
    b. False

4. Poor health is inevitable in older age
    a. True
    b. False

5. Ageism means having negative attitudes and/or discriminating against people because of their age
    a. True
    b. False

6. I can be ageist and not know it
    a. True
    b. False

Resource List

Georgia Specific:

Find your local Area Agency on Aging (AAA)
https://aging.georgia.gov/find-location
*Lists resources close to you

Georgia's Aging and Disability Resource Center
https://www.georgiaadrc.com
*System of organizations – Assesses needs and provides updated information on services

Alzheimer's Association on Aging – GA Chapter
https://www.alz.org/georgia
*Provides care and support for those affected by Alzheimer's disease and other dementias

Center for Positive Aging
http://www.centerforpositiveaging.org/index.html
*Resources, products and services for older adults

Department of Community Health
https://dch.georgia.gov
*Information on Medicaid and access to services

Leading Age Georgia
http://leadingagega.org
*Non-profit organization to provide housing healthcare and community-based services for older adults

Good Pill Pharmacy
https://www.goodpill.org
*Nonprofit that provides affordable medication to those with high medication costs

Nationwide:

Alliance for Aging Research
www.agingresearch.org
Nonprofit dedicated to improving health and independence of older adults as they age by conducting research and providing geriatric education

ElderCare Online
www.ec-online.net
Provides links to several eldercare resources

The Aging Research Centre
www.arclab.org
*Information related to the study of the aging process for researches

Aging with Dignity
www.agingwithdignity.org
*Nonprofit that provides practical information and legal tools to help older adults receive care

The Gerontological Society of Aging
www.geron.org
*Promotes study of aging

The National Council on the Aging
www.ncoa.org
*Center of expertise on issues related to aging. Participates in education, service, advocacy and leadership in aging.

American Society on Aging
www.asaging.org
*Educational resource for those who care for older adults

Alzheimer's Association
www.alz.org
*Dedicated to researching the prevention, cures and treatments of Alzheimer's disease.

Caregiver's Handbook
www.acsu.buffalo.edu/~drstall/hndbk0.html
*Online handbook for caregivers about nutrition, medical aspects and liability of caregiving.

AARP Health Information
www.aarp.org/bulletin
*Has BMI calculator, health-related articles, food pyramid and healthy recipes.

Growth House, Inc.
www.growthhouse.org
*International gateway to resources for life-threatening illnesses and end-of-life care.

Hospice Foundation of America
www.HospiceFoundation.org
*Learn all about hospice

Administration on Aging
www.aoa.dhhs.gov
*Provides information for older adults and their families

American Geriatrics Society
www.americangeriatrics.org
*Learn about health care and social issues facing older adults

Community Transportation Association of America
www.ctaa.org
*Non-profit that provides transportation to all, regardless of ability, age or financial status

Module 1 – Aging 101 & Resources Evaluation

Years working in MAT _____

1. What did you like about today's session?

2. What else do you wish would have been covered in this session?

3. What can we do to improve the training session and how the material was delivered?

4. Would you recommend this training session to other OTP providers?
    a. Yes
    b. No

Appendix C: An Introduction to Aging for Opioid Treatment Providers - Module 2

A Continuing Education Curriculum

Created By: Jessica Biser, MPH Candidate

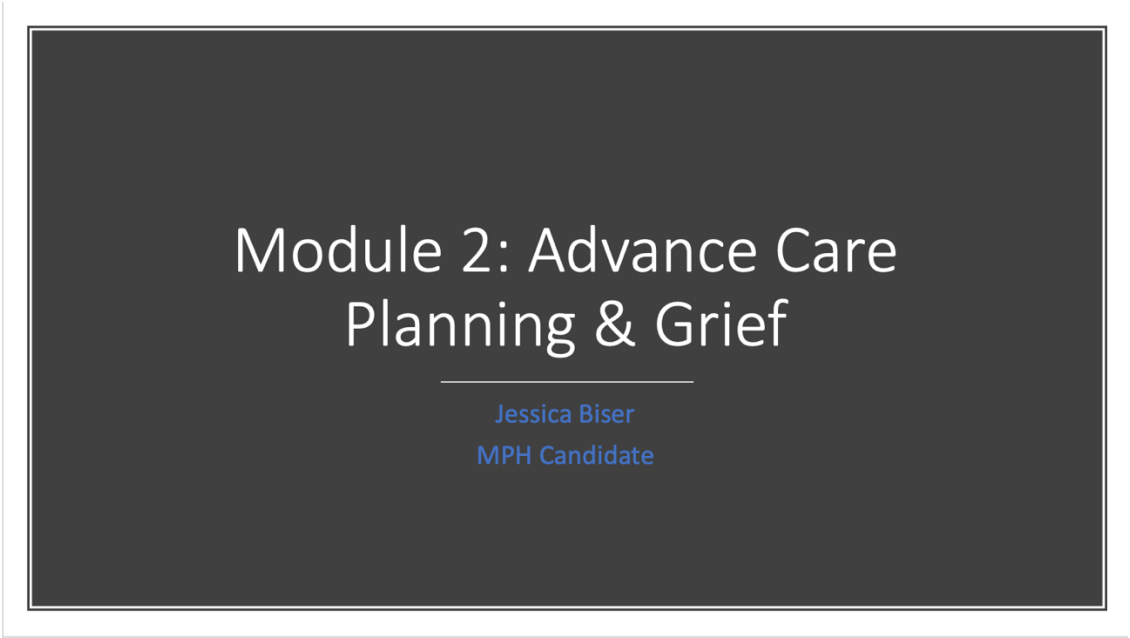
For: Opioid Treatment Providers of Georgia

Module 2: Advance Care Planning & Grief	
Time	50 minutes
Materials	1. Laptop, projector, and Module 2 PowerPoint slides 2. Pre/Post-test handouts 3. Grief handouts 4. Advance Care Planning handouts 5. Pens, pencils
Module Summary	This module will introduce advance care planning and the forms specific to Georgia. It will explain the stages of grief and how treatment providers might respond to patients who are grieving. This will be accomplished through the administration of a pre/post-test, facilitated discussion and an interactive activity.
Goal Objectives	To educate providers on advance care planning and the process of grieving By the end of this module, providers will be able to: 1. Explain what advance care planning is 2. Explain how to fill out Advance Care Directive and DNR forms 3. Identify the stages of grief

Part 1: Introduction

Time	5 minutes
Materials	None

- The facilitator will introduce her or himself and lay out the schedule for this training.
- Explain to the providers that this module will be a description of advance care planning and will review the stages of grief.



Part 2: Pre-Test

Time	5 minutes
Materials	• Pre-test • Pencils

- Explain to the providers that this test will not be graded and will be kept confidential. The test will be used to see if this module was helpful in teaching the providers, and the exact same test will be given at the end of the class.
- ***Handout pre-tests and pens***
- ***Collect pre-tests after completion***

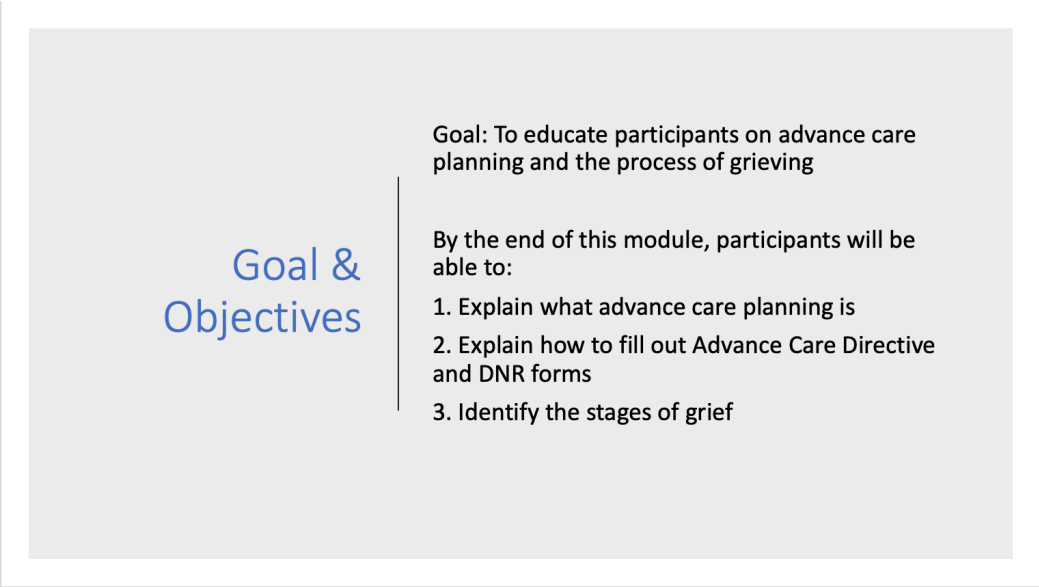
Part 3: Advance Care Planning

Time	25 minutes
Materials	• Advance Care Planning handouts • Pencils • Module 2 PowerPoint, laptop, and projector

Goal and Objectives:

The goal for this module is to educate you on advance care planning and the process of grieving. By the end of this module, you should be able to:

1. Explain what advance care planning is
2. Explain how to fill out Advance Care Directive and DNR forms
3. Identify stages of grief

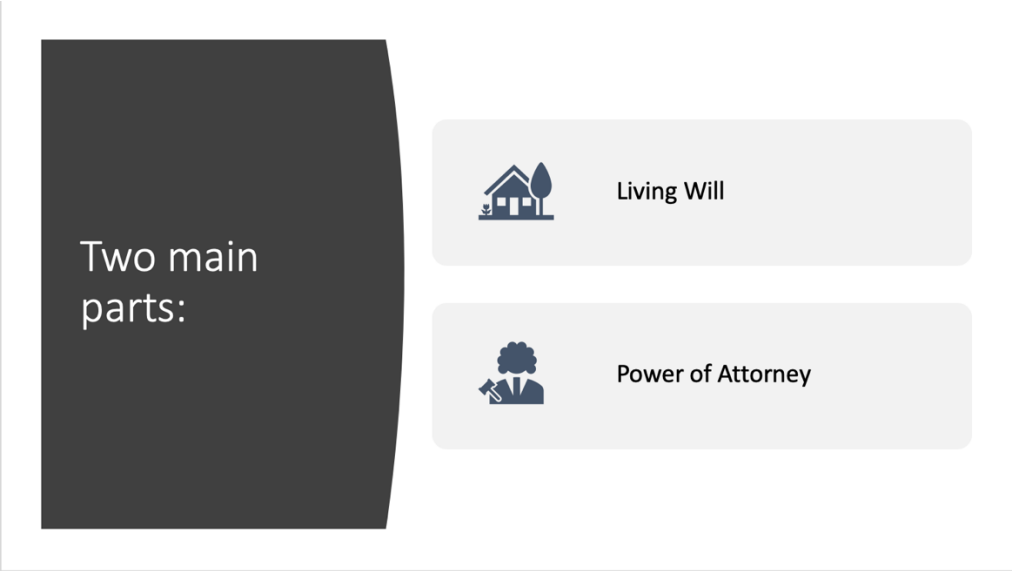


-Ask providers: What is advance care planning?

Advance Care Planning involves:

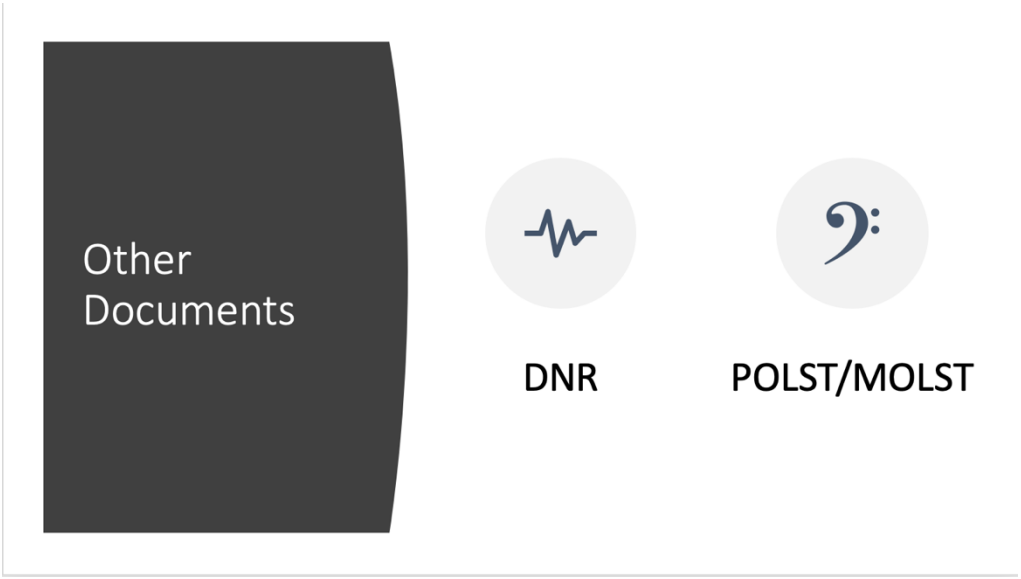
- Making critical health decisions now in case you're too ill to make a decision later on. Advance care planning is not only for older adults – accidents could happen at any time. The forms you fill out are called Advance Care Directives and include questions like whether or not you would like the use of CPR, ventilation, artificial nutrition or comfort care. Loved ones should be involved in advance care planning so they know your specific health wishes.
- Only 25-30% of Americans have filled out advance directives

- Two main pieces: living will and healthcare power of attorney
  1. Living Will: the document that tells doctors what to do if you're unable to make decisions. These are the specific treatment wishes you choose.
  2. Power of Attorney: the person who is designated to be your proxy during critical decisions when you're unable to speak for yourself. This person should be someone who knows you and your values so they are able to accurately speak on your behalf. Having a power of attorney is a good idea if someone feels uncomfortable writing certain health decisions down on paper. A power of attorney can be chosen in addition to or instead of a living will.

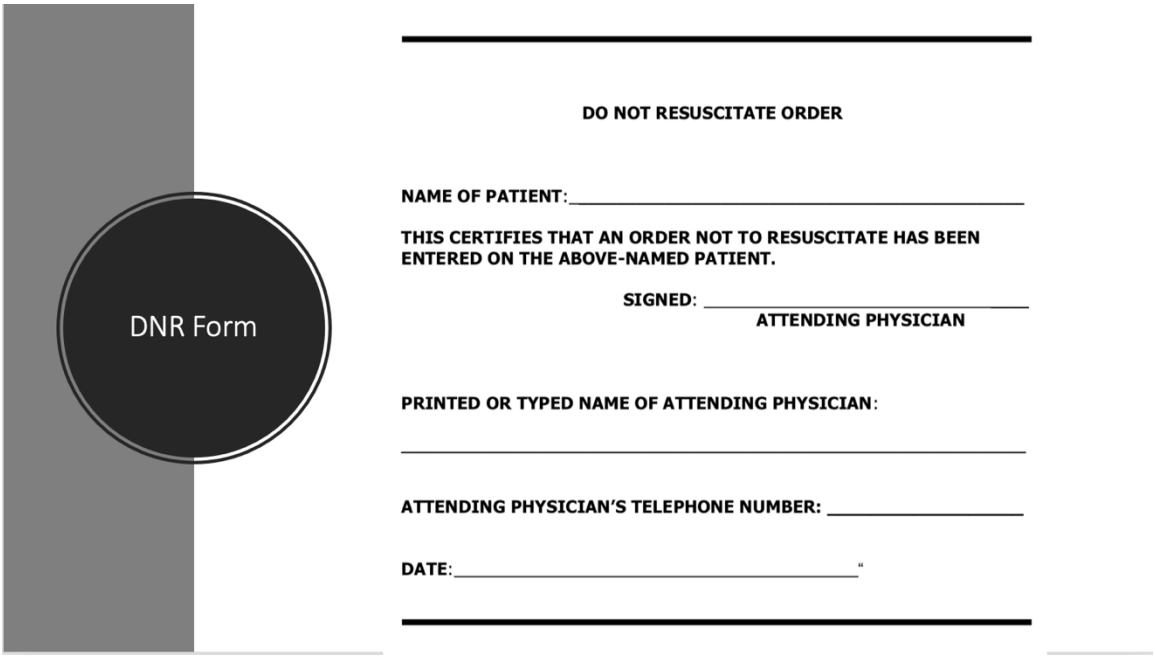


Other Documents:
DNR: Do Not Resuscitate. This form tells medical professionals that they should not return heart to normal rhythm if it stops beating. It means you do not want any CPR or other life-sustaining measures in the event that your heart stopped beating. This form needs a physician signature.

POLST/MOLST (Physician/Medical Orders for Life-Sustaining Treatment) is a written document with healthcare decisions when you near end-of-life. It will be filled out by a physician or nurse practitioner after a full discussion of these healthcare decisions with you and your family. It includes decision about CPR, medical interventions, artificial nutrition and antibiotic use.



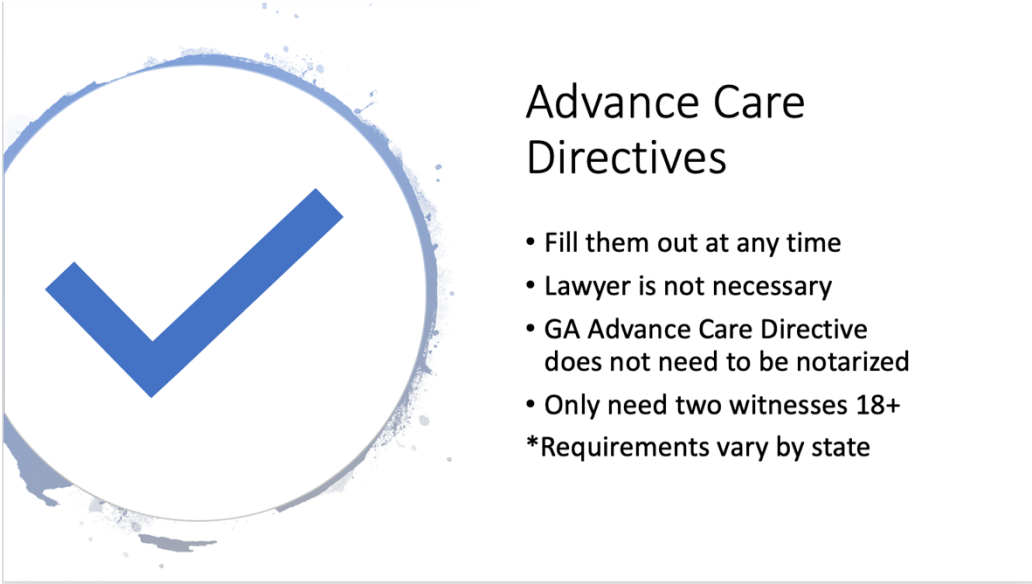
This is an example of the DNR form. As you can see, the DNR form is pretty simple and only requires a signature by the patient and physician. It simply states that an individual does not want CPR of life-sustaining measures in the event their heart stops.



<u>When should people fill them out?</u>
Whenever! It is a good idea for **everyone to fill out the advance care directives** because accidents can happen at any time.

<u>What is the process?</u>

Fill out legal forms once decisions are made. **A lawyer is not necessary, and the forms do not need to be notarized.** There only needs two witnesses 18+ present for the Georgia Advance Care directives. Note that requirements vary by state and more information can be found on the Georgia AARP website (AARP, 2011).



-Ask providers: Do you have any questions about advance care planning?

Activity:
We will now go over the Advance Care Directive form together and how to walk patients through filling them out if they ask. We will not go over the POLST form today since that will typically be done by the patient's physician, but I wanted to introduce you to it so you would be familiar with what it is.

-Hand out sample Advance Care Directive forms from Georgia
-Walk through what the forms contain and how to fill them out

You should now all have the Advance Care Directive of Georgia. There are four parts to the Advance Directive (AARP, 2011).

1. Health Care Agent
2. Treatment Preferences
3. Guardianship
4. Effectiveness and Signatures

Health Care Agent
Notes who the main power of attorney and a back-up power of attorney will be for the patient. The next few sections describe the roles and responsibilities of the power of attorney during decision making and, if applicable, after death of a patient. After a patient dies, the power of attorney will have to make decisions about autopsies, organ donation and disposition of the body.

Selecting a Health Care Agent (HCA) is very important because you want to be sure they have your best interests in mind. It is important to be able to communicate openly with this individual and express your wishes clearly. You want to choose someone who is reliable and has beliefs and values similar to yours or, if they have different beliefs, that they can be trusted to respect your beliefs if the time came. This person might not be the person closest to you, but the one you trust the most to respect your wishes.

As a provider, this is important to get across to your patients.
-Ask providers: How might you approach this conversation about choosing an HCA? What kinds of things would you ask patients to consider when choosing an HCA?

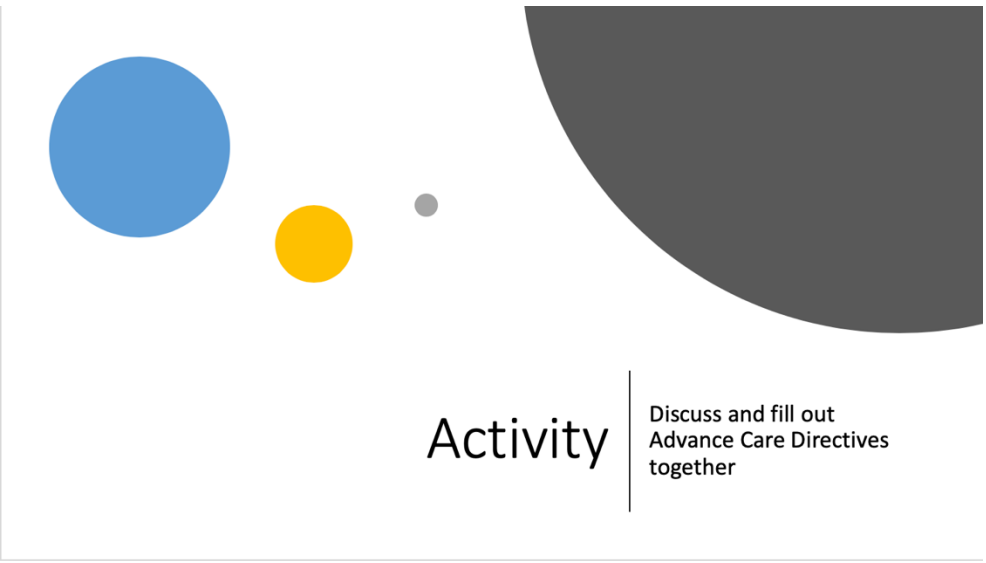
Treatment Preferences
This section starts with a conditional statement on when the treatment preferences will apply. It then gives specific treatment options and the patient should initial which they would like to apply. If the patient has any further requests, there is a section available for them to write additional preferences.

Guardianship
This part of the form is optional. It asks if a patient would like to nominate a guardian to help with personal support, safety and welfare if they are incapable of making their own decisions. This could be from severe cognitive decline, stroke etc. This is not the same thing as a power of attorney, although it can be the same person. If a patient chooses two separate people, the power of attorney will have the final say when it comes to health decisions, but the guardian will have the final say when it comes to all other decisions.

If this part of the form is left blank and a court deems a patient in need of a guardian, the court will appoint one no matter what and the patient will have no say. People may be hesitant to fill out this portion because they're afraid of losing autonomy, but it's important to emphasize to your patient that guardianship won't become effective unless it is court appointed.

If you nominate someone, choose someone who will act on your best interests – just as you do for the HCA. If you have two children for example, choose the one that you think would do a better job of making some day to day decisions in your life.

Effectiveness and Signatures
Finally, the form needs to be signed by the patient and two witnesses in order for it to be effective and valid. As a reminder, these witnesses need to be 18+ and they cannot be your HCA, they cannot be someone who will inherit your belongings or someone who is involved in your healthcare.



Discussion:

-Facilitate a group discussion with the following questions:

1. ***Have any of you had experience talking to patients about advance care planning? If so, how did it go?***
2. ***What are some challenges or communication barriers to addressing patients about these forms?***
3. ***What are ways to make these conversations with older patients easier and more comfortable?***

-Instructor wrap up conversation and reiterate that the number of older adults in treatment is growing and we're still learning ways to accommodate the special needs of this population

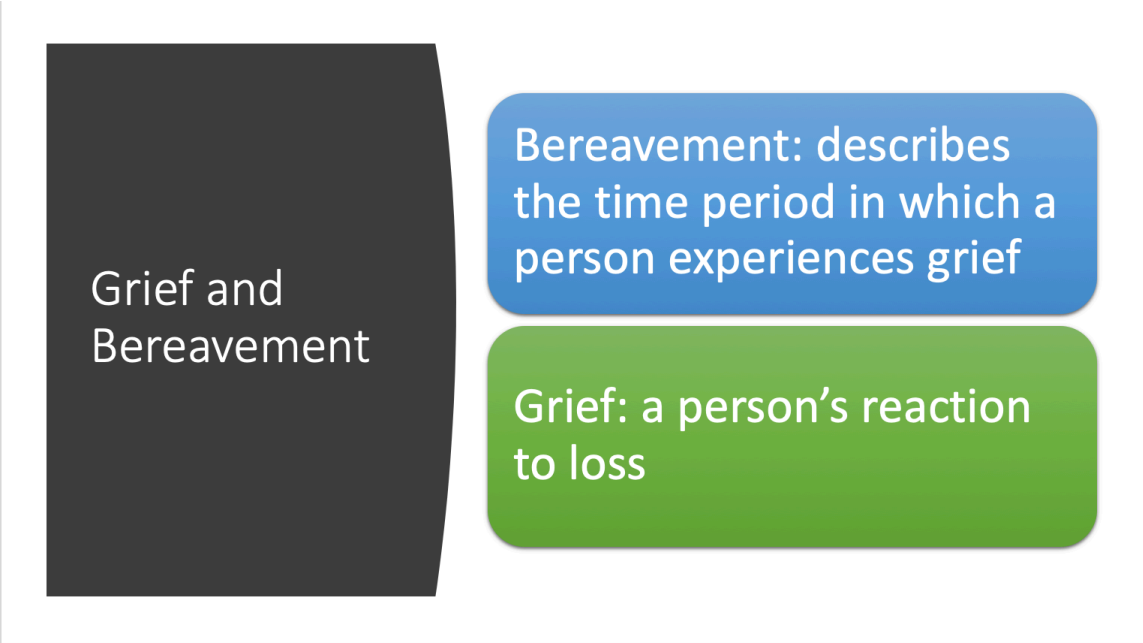
Part 4: Grief and Bereavement

Time	25 minutes
Materials	• Grief handouts • Pencils • Module 2 PowerPoint, laptop, and projector

4a. Grief Defined

-Ask providers: What is the difference between grief and bereavement?

Bereavement: describes the time period in which a person experiences grief.
Grief: a person's reaction to loss. Grief isn't always experienced after a death. It can be felt after the loss of a job or divorce or even during a life-limiting illness (CareSearch, 2017).



There are five stages of the grieving process as laid out by Kubler-Ross (Kessler & Kubler-Ross, 2019).

1. Denial
   In the first stage, it is hard to fathom the loss of a loved one. Numbness can take over and things may seem overwhelming. Shock and denial as a survival response to cope with such a loss.

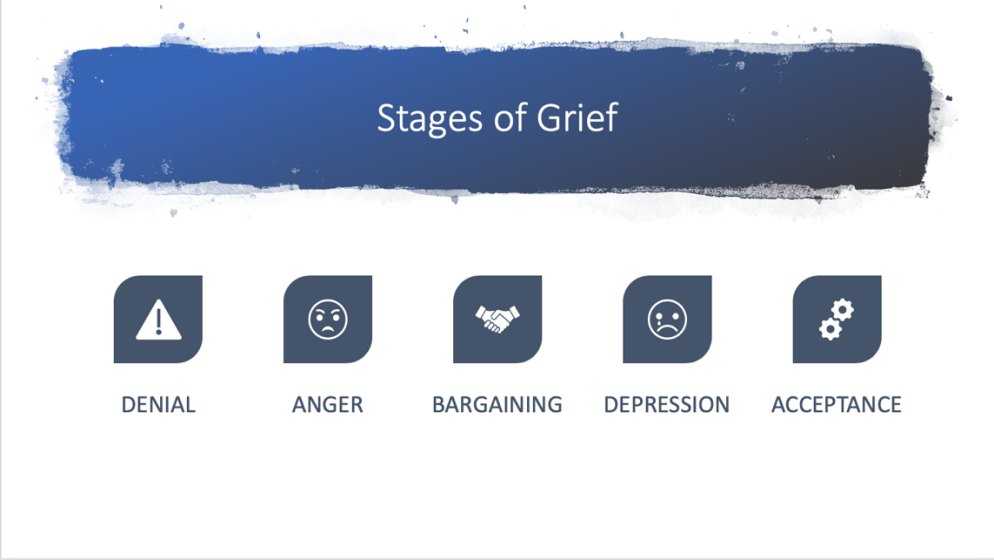
2. Anger

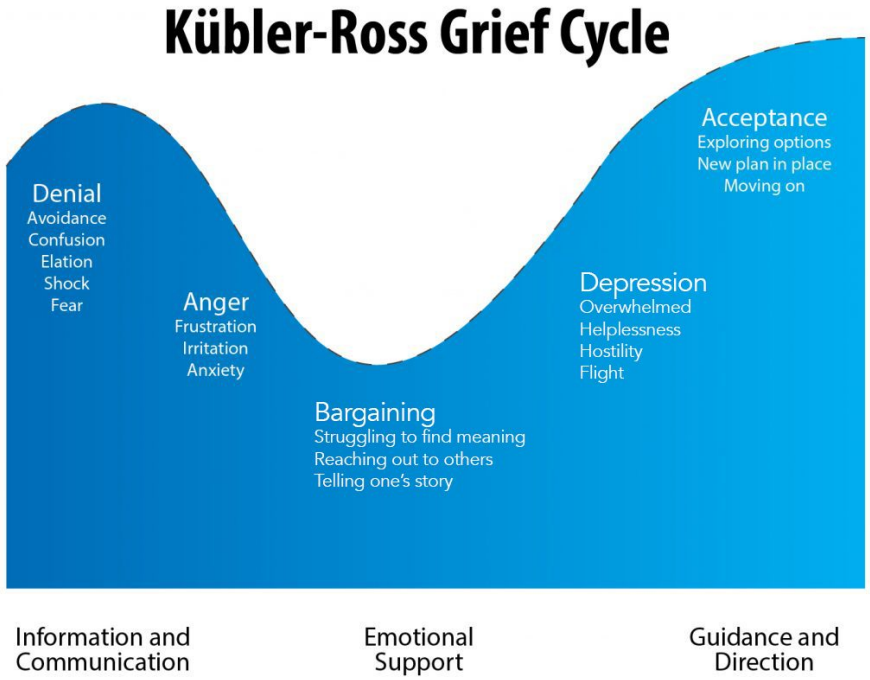
People then begin to feel angry that someone/something they love was taken from them. This anger can dissipate to others in their life and, if applicable, into their faith lives toward God.

3. Bargaining
   Bargaining is the stage where people would do anything to bring their loved ones back. They try bargaining with God – for example, "Please God. I'll give all I have if you let this person live". In this stage, people want the life they used to have before the loss or the illness.

4. Depression
   Once a person brings their focus back to the present, they are fully encompassed in grief. They feel empty, foggy and experience intense sadness. It is difficult to realize that life must go on without the loss.

5. Acceptance
   Finally, the individual comes to accept that the loss happened and is permanent. They may not ever be fully "okay" after the loss of a loved one, but they have accepted it and find a new normal. It is common to feel like we're betraying loved ones by moving on and building new relationships, but it's important to note that this is all part of the process and nothing will replace the loved one who was lost.

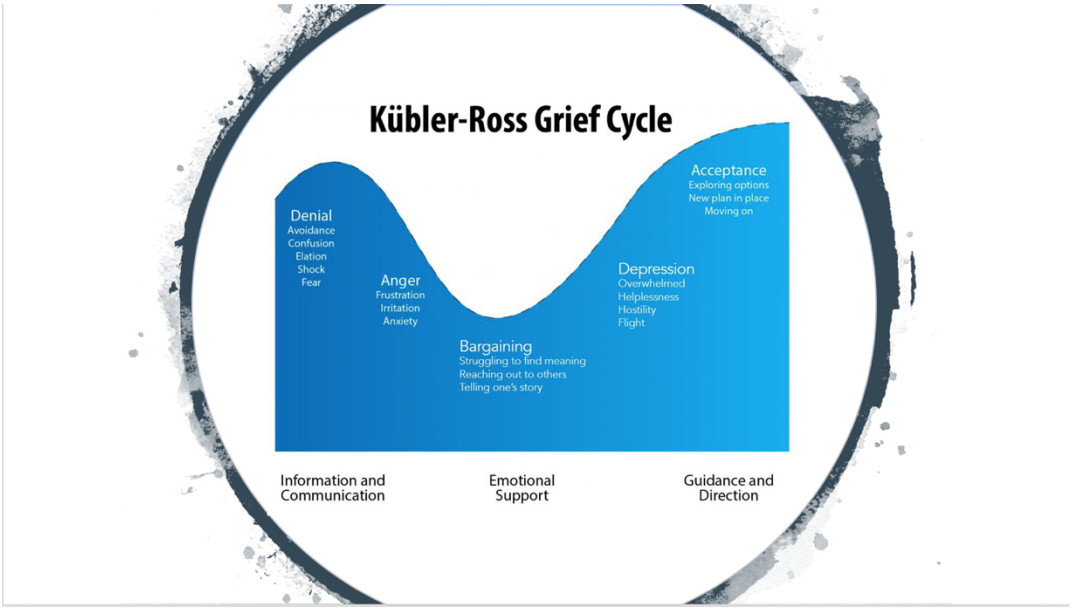




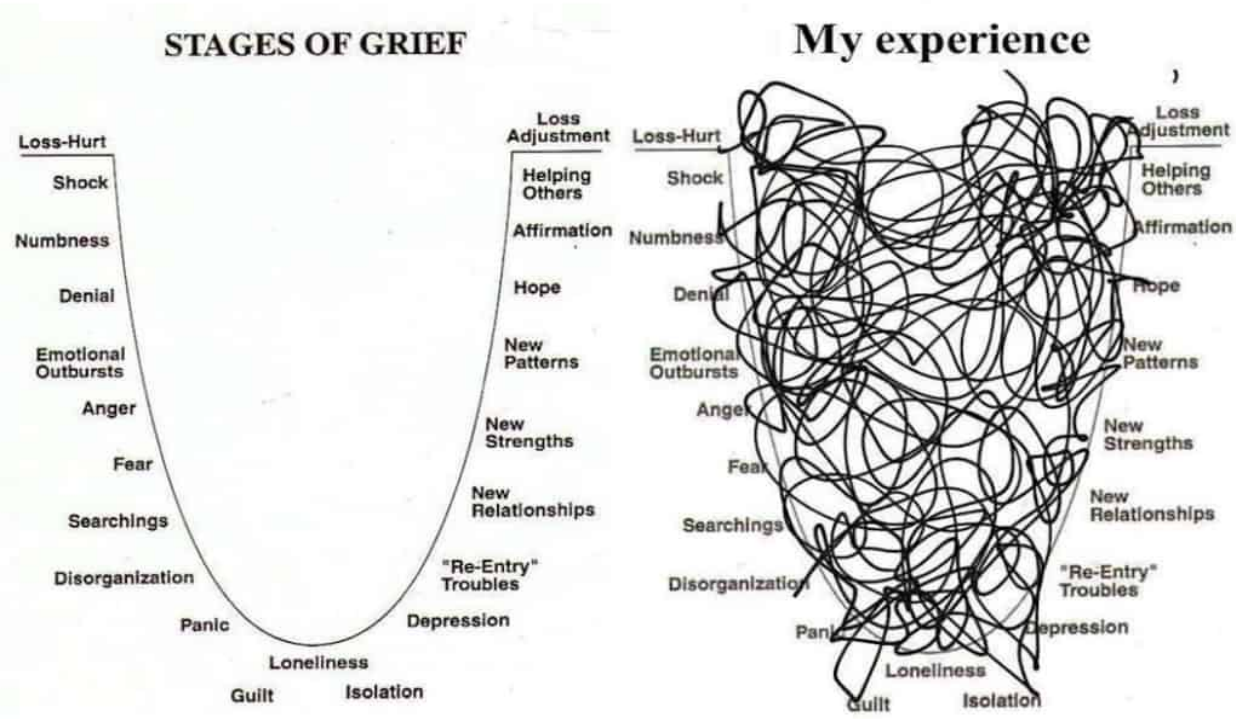
(Kessler & Kubler-Ross, 2019)

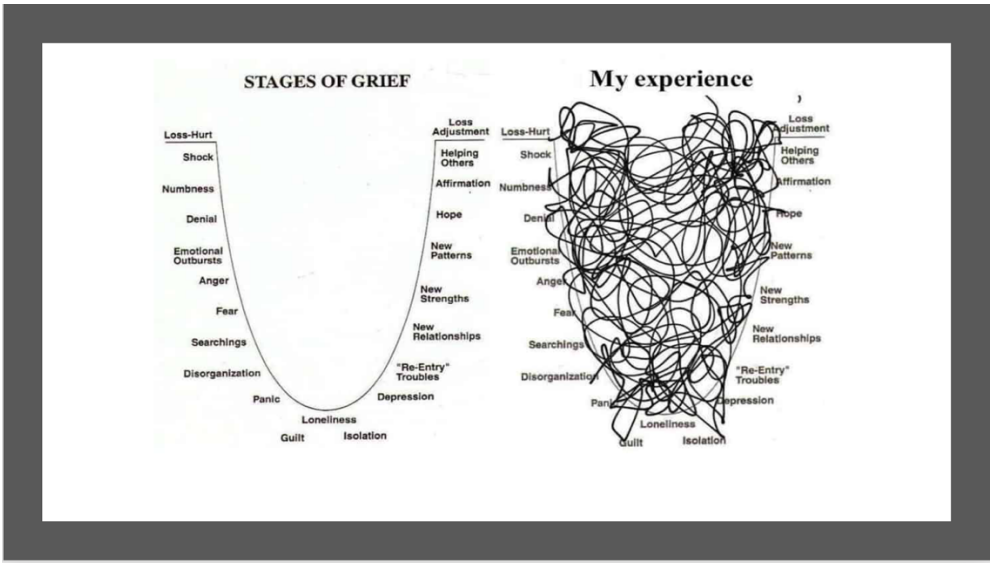
-Instructor use image to show each stage as it is being described

As shown in this image, the grief cycle is a rollercoaster of emotions; people experience highs and lows. In the first stage, people are in denial so the individual may not be experiencing much emotion at this point but once they get down to the bargaining stage, they are at a low point. They would do anything to have the person back in their life.



This graphic shows how an individual may skip from one stage of grief to the next and that everyone's experience will look different.



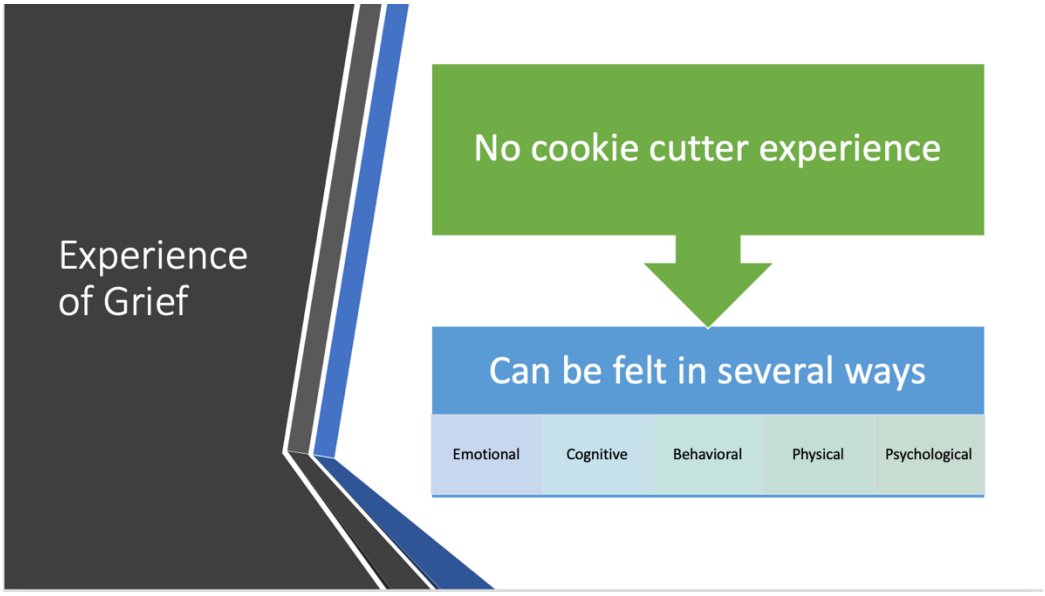


We all experience these stages differently and for different lengths of time. Know that there is a textbook definition of grief and then how we experience it in reality. There is no "cookie cutter" experience of grief.

Grief can be experienced and exhibited in many different ways: (CareSearch, 2017)

- Emotional: depression, anxiety, guilt, anger, loneliness, loss of pleasure, shock and numbness
- Cognitive: Thinking all the time about the person who passed, sense that the dead person is still about, denial and hopelessness
- Behavioral: Over or under activity, social withdrawal, agitation.
- Physical feelings: Loss of appetite, sleep disturbances and tiredness
- Physiological: susceptibility to illness

All of these are interrelated and you may experience some more strongly than others.



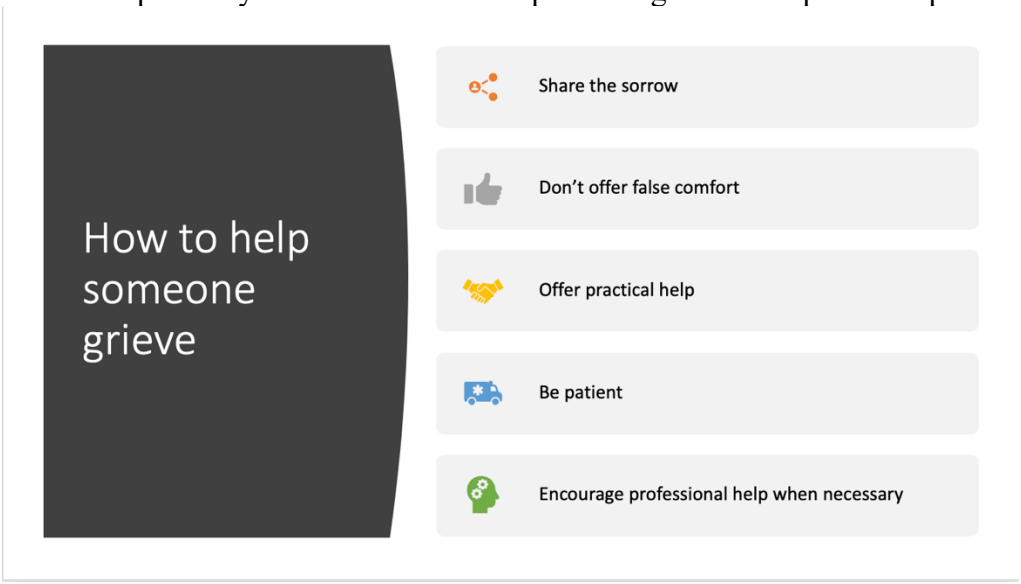
4b Provider Management of Grief

<u>How can you as providers be better equipped to handle grief?</u>

If a patient has lost a loved one, you can help them through the grieving process with the following steps:

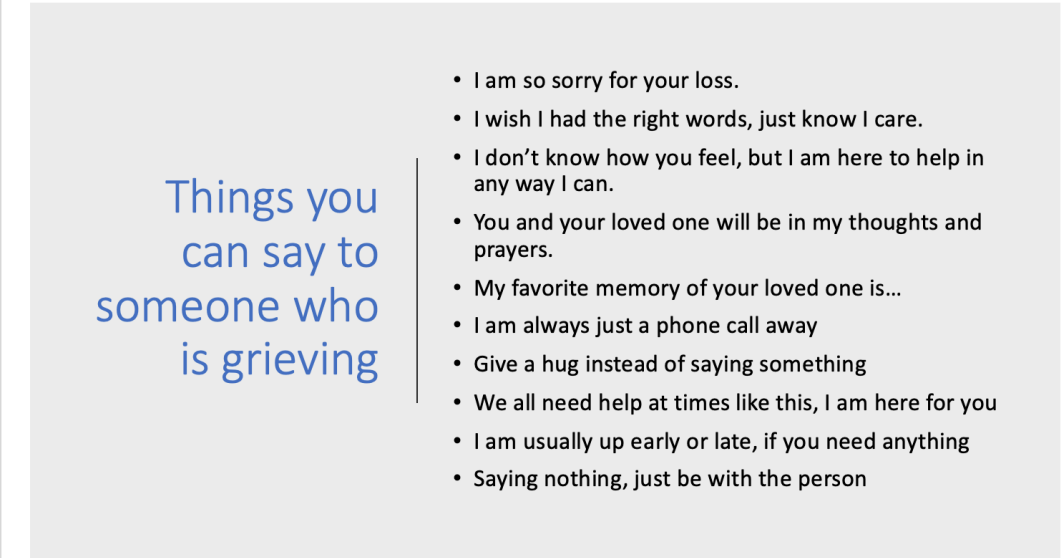
1. ***Share the sorrow.*** Allow them — even encourage them — to talk about their feelings of loss and share memories of the deceased.
2. ***Don't offer false comfort.*** It doesn't help the grieving person when you say, "it was for the best" or "you'll get over it in time." Instead, offer a simple expression of sorrow and take time to listen.
3. ***Offer practical help.*** Baby-sitting, cooking and running errands are all ways to help someone who is in the midst of grieving.
4. ***Be patient.*** Remember that it can take a long time to recover from a major loss. Make yourself available to talk.

5. ***Encourage professional help when necessary.*** Don't hesitate to recommend professional help when you feel someone is experiencing too much pain to cope alone.



Here are 10 things you can say to someone who is grieving:

1. I am so sorry for your loss.
2. I wish I had the right words; just know I care.
3. I don't know how you feel, but I am here to help in any way I can.
4. You and your loved one will be in my thoughts and prayers.
5. My favorite memory of your loved one is…
6. I am always just a phone call away
7. Give a hug instead of saying something
8. We all need help at times like this, I am here for you
9. I am usually up early or late, if you need anything
10. Saying nothing, just be with the person



As providers, you can suggest simple activities to help someone who is grieving.

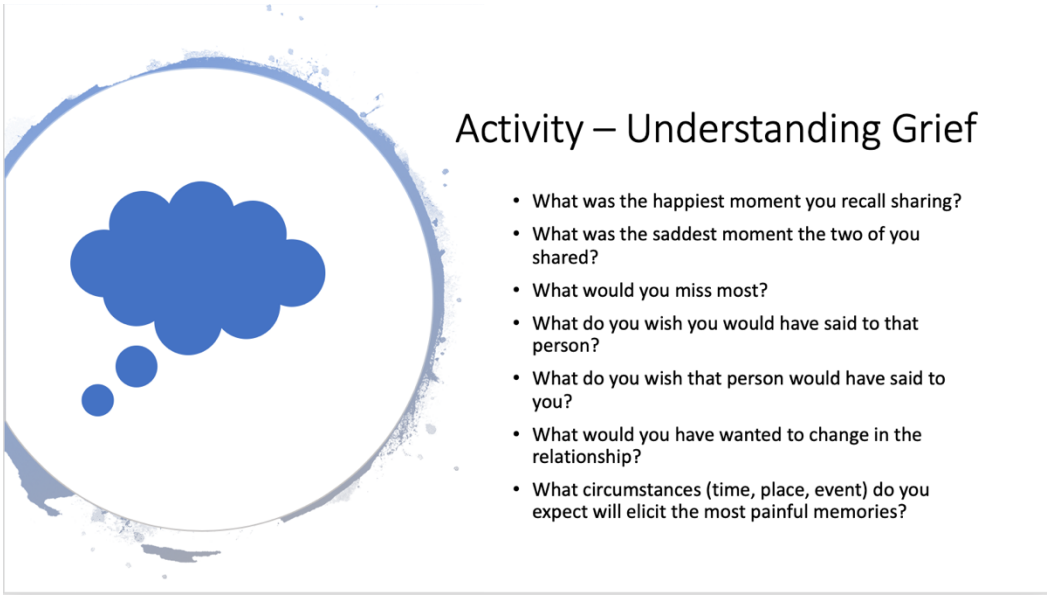
1. Write a letter to the deceased or to God
2. Journal about the grief experience
3. Read about grief
4. Write about any "unfinished business" and try to come to a resolution

Know that some people may experience "unfinished business" with the deceased. This means that there may be unexpressed emotions or unresolved relationship issues that can prevent healing.

5. The "empty chair" technique – pretend like the deceased is sitting in a chair across from you and tell them everything you wish you could have told them before they passed away.

-Activity: "Understanding Grief"
-Tell providers to think about an important person in their lives and image they were to die tomorrow. Then answer the following questions and discuss.

- ***What was the happiest moment you recall sharing?***
- ***What was the saddest moment the two of you shared?***
- ***What would you miss most?***
- ***What do you wish you would have said to that person?***
- ***What do you wish that person would have said to you?***
- ***What would you have wanted to change in the relationship?***
- ***What circumstances (time, place, event) do you expect will elicit the most painful memories?***

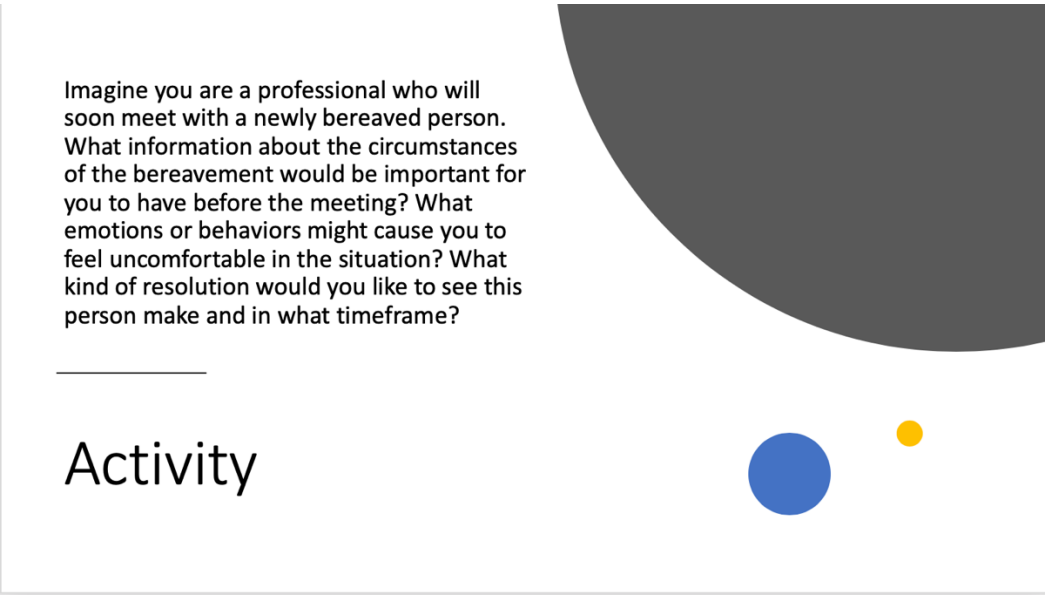


-Activity: Give providers the following scenario – "Imagine you are a professional who will soon meet with a newly bereaved person" and answer the following questions

1. ***What information about the circumstances of the bereavement would be important for you to have before the meeting?***
2. ***What emotions or behaviors might cause you to feel uncomfortable in the situation?***
3. ***What kind of resolution would you like to see this person make and in what timeframe?***

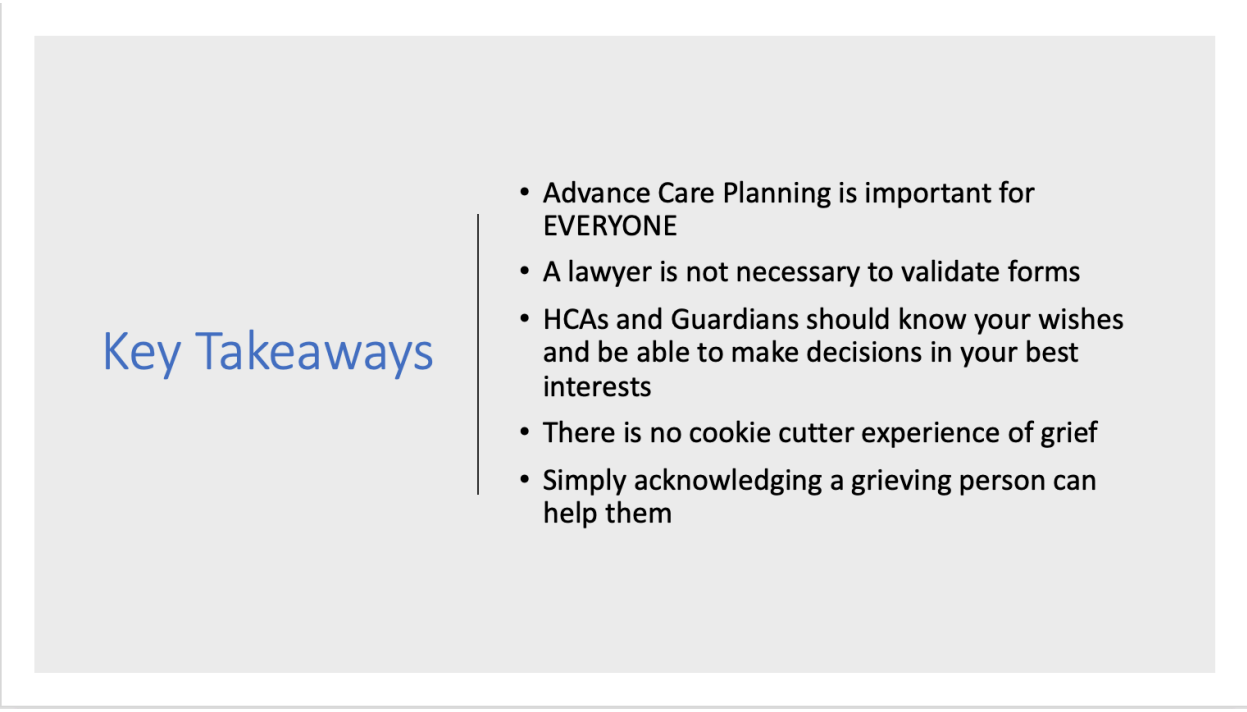
Tell providers to first think about answers on their own then share with a partner. Once the partner sharing starts to slow down, open it up to a full group discussion.

-Wrap up grief discussion and ask for any final thoughts/questions about advance care planning or grief/bereavement



Here are some key takeaways from this module:

- Advance care planning is important for EVERYONE
- A lawyer is not necessary to validate forms
- HCAs and guardians should know your wishes and be able to make decisions in your best interest
- There is no cookie cutter experience of grief
- Simply acknowledging a grieving person can help them



Part 5: Post-Test and Evaluation

Time	25 minutes
Materials	• Module 2 Post-test • Pencils

- Ask for any last questions about the material covered in class.
- Administer post-test again explaining that they will not be graded.
- Ask for feedback of today's class either through a written survey or verbally.

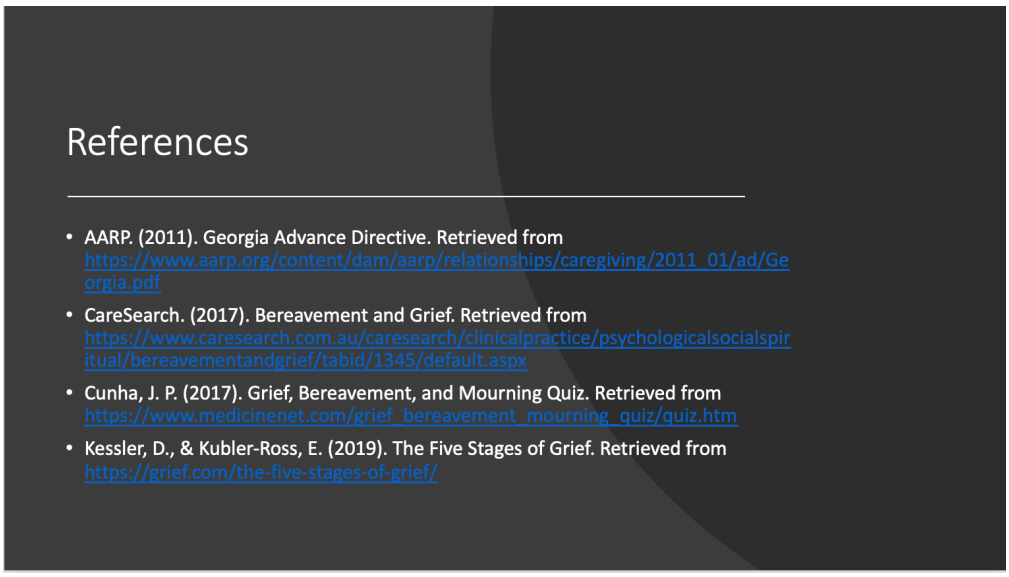
References for Module 2

AARP. (2011). Georgia Advance Directive. Retrieved from https://www.aarp.org/content/dam/aarp/relationships/caregiving/2011_01/ad/Georgia.pdf

CareSearch. (2017). Bereavement and Grief. Retrieved from https://www.caresearch.com.au/caresearch/clinicalpractice/psychologicalsocialspiritual/bereavementandgrief/tabid/1345/default.aspx

Cunha, J. P. (2017). Grief, Bereavement, and Mourning Quiz. Retrieved from https://www.medicinenet.com/grief_bereavement_mourning_quiz/quiz.htm

Kessler, D., & Kubler-Ross, E. (2019). The Five Stages of Grief. Retrieved from https://grief.com/the-five-stages-of-grief/



Appendix D: Handouts for Module 2 of Curriculum

Georgia Advance Directive for Health Care

By: _____ Date of Birth: _____
(Print Name) *(Month/Day/Year)*

This advance directive for health care has four parts:

PART ONE—Health Care Agent. *This part allows you to choose someone to make health care decisions for you when you cannot (or do not want to) make health care decisions for yourself. The person you choose is called a health care agent. You may also have your health care agent make decisions for you after your death with respect to an autopsy, organ donation, body donation, and final disposition of your body. You should talk to your health care agent about this important role.*

PART TWO—Treatment Preferences. *This part allows you to state your treatment preferences if you have a terminal condition or if you are in a state of permanent unconsciousness. PART TWO will become effective only if you are unable to communicate your treatment preferences. Reasonable and appropriate efforts will be made to communicate with you about your treatment preferences before PART TWO becomes effective. You should talk to your family and others close to you about your treatment preferences.*

PART THREE—Guardianship. *This part allows you to nominate a person to be your guardian should one ever be needed.*

PART FOUR—Effectiveness and Signatures. *This part requires your signature and the signatures of two witnesses. You must complete PART FOUR if you have filled out any other part of this form.*

You may fill out any or all of the first three parts listed above. You must fill out PART FOUR of this form in order for this form to be effective.

You should give a copy of this completed form to people who might need it, such as your health care agent, your family, and your physician. Keep a copy of this completed form at home in a place where it can easily be found if it is needed. Review this completed form periodically to make sure it still reflects your preferences. If your preferences change, complete a new advance directive for health care.

Using this form of advance directive for health care is completely optional. Other forms of advance directives for health care may be used in Georgia.

You may revoke this completed form at any time. This completed form will replace any advance directive for health care, durable power of attorney for health care, health care proxy, or living will that you have completed before completing this form.

PART ONE—Health Care Agent

PART ONE will be effective even if PART TWO is not completed. A physician or health care provider who is directly involved in your health care may not serve as your health care agent. If you are married, a future divorce or annulment of your marriage will revoke the selection of your current spouse as your health care agent. If you are not married, a future marriage will revoke the selection of your health care agent unless the person you selected as your health care agent is your new spouse.

1. Health Care Agent

I select the following person as my health care agent to make health care decisions for me:

Name: _____
Address: _____
Telephone Numbers: _____
(Home, Work, and Mobile)

2. Back-Up Health Care Agent

This section is optional. PART ONE will be effective even if this section is left blank.

If my health care agent cannot be contacted in a reasonable time period and cannot be located with reasonable efforts or for any reason my health care agent is unavailable or unable or unwilling to act as my health care agent, then I select the following, each to act successively in the order named, as my back-up health care agent(s):

Name: _____

Address: _____

Telephone Numbers: _____

(Home, Work, and Mobile)

Name: _____

Address: _____

Telephone Numbers: _____

(Home, Work, and Mobile)

3. General Powers of Health Care Agent

My health care agent will make health care decisions for me when I am unable to communicate my health care decisions or I choose to have my health care agent communicate my health care decisions.

My health care agent will have the same authority to make any health care decision that I could make. My health care agent´s authority includes, for example, the power to:

- **Admit me to or discharge me from any hospital, skilled nursing facility, hospice, or other health care facility or service;**
- **Request, consent to, withhold, or withdraw any type of health care; and**
- **Contract for any health care facility or service for me, and to obligate me to pay for these services (and my health care agent will not be financially liable for any services or care contracted for me or on my behalf).**

My health care agent will be my personal representative for all purposes of federal or state law related to privacy of medical records (including the Health Insurance Portability and Accountability Act of 1996) and will have the same access to my medical records that I have and can disclose the contents of my medical records to others for my ongoing health care.

My health care agent may accompany me in an ambulance or air ambulance if in the opinion of the ambulance personnel protocol permits a passenger and my health care agent may visit or consult with me in person while I am in a hospital, skilled nursing facility, hospice, or other health care facility or service if its protocol permits visitation.

My health care agent may present a copy of this advance directive for health care in lieu of the original and the copy will have the same meaning and effect as the original.

I understand that under Georgia law:

- **My health care agent may refuse to act as my health care agent;**
- **A court can take away the powers of my health care agent if it finds that my health care agent is not acting properly; and**
- **My health care agent does not have the power to make health care decisions for me regarding psychosurgery, sterilization, or treatment or involuntary hospitalization for mental or emotional illness, mental retardation, or addictive disease.**

4. Guidance for Health Care Agent

When making health care decisions for me, my health care agent should think about what action would be consistent with past conversations we have had, my treatment preferences as expressed in PART TWO (if I have filled out PART TWO),

my religious and other beliefs and values, and how I have handled medical and other important issues in the past. If what I would decide is still unclear, then my health care agent should make decisions for me that my health care agent believes are in my best interest, considering the benefits, burdens, and risks of my current circumstances and treatment options.

5. Powers of Health Care Agent After Death

(A) AUTOPSY

My health care agent will have the power to authorize an autopsy of my body unless I have limited my health care agent´s power by initialing below.

_____ *(Initials)* **My health care agent will not have the power to authorize an autopsy of my body (unless an autopsy is required by law).**

(B) ORGAN DONATION AND DONATION OF BODY

My health care agent will have the power to make a disposition of any part or all of my body for medical purposes pursuant to the Georgia Anatomical Gift Act, unless I have limited my health care agent´s power by initialing below.

Initial each statement that you want to apply.

_____ *(Initials)* **My health care agent will not have the power to make a disposition of my body for use in a medical study program.**

_____ *(Initials)* **My health care agent will not have the power to donate any of my organs.**

(C) FINAL DISPOSITION OF BODY

My health care agent will have the power to make decisions about the final disposition of my body unless I have initialed below.

_____ *(Initials)* **I want the following person to make decisions about the final disposition of my body:**

Name: _____

Address: _____

Telephone Numbers: _____

(Home, Work, and Mobile)

I wish for my body to be:

_____ *(Initials)* **Buried**

OR

_____ *(Initials)* **Cremated**

PART TWO—Treatment Preferences

PART TWO will be effective only if you are unable to communicate your treatment preferences after reasonable and appropriate efforts have been made to communicate with you about your treatment preferences. PART TWO will be effective even if PART ONE is not completed. If you have not selected a health care agent in PART ONE, or if your health care agent is not available, then PART TWO will provide your physician and other health care providers with your treatment preferences. If you have selected a health care agent in PART ONE, then your health care agent will have the authority to make all health care decisions for you regarding matters covered by PART TWO. Your health care agent will be guided by your treatment preferences and other factors described in Section (4) of PART ONE.

6. Conditions

PART TWO will be effective if I am in any of the following conditions:

Initial each condition in which you want PART TWO to be effective.

_____ *(Initials)* **A terminal condition, which means I have an incurable or irreversible condition that will result in my death in a relatively short period of time.**

_____ *(Initials)* **A state of permanent unconsciousness, which means I am in an incurable or irreversible condition in which I am not aware of myself or my environment and I show no behavioral response to my environment.**

My condition will be determined in writing after personal examination by my attending physician and a second physician in accordance with currently accepted medical standards.

7. Treatment Preferences

State your treatment preference by initialing (A), (B), or (C). If you choose (C), state your additional treatment preferences by initialing one or more of the statements following (C). You may provide additional instructions about your treatment preferences in the next section. You will be provided with comfort care, including pain relief, but you may also want to state your specific preferences regarding pain relief in the next section.

If I am in any condition that I initialed in Section (6) above and I can no longer communicate my treatment preferences after reasonable and appropriate efforts have been made to communicate with me about my treatment preferences, then:

(A) _____ *(Initials)* **Try to extend my life for as long as possible, using all medications, machines, or other medical procedures that in reasonable medical judgment could keep me alive. If I am unable to take nutrition or fluids by mouth, then I want to receive nutrition or fluids by tube or other medical means.**

OR

(B) _____ *(Initials)* **Allow my natural death to occur. I do not want any medications, machines, or other medical procedures that in reasonable medical judgment could keep me alive but cannot cure me. I do not want to receive nutrition or fluids by tube or other medical means except as needed to provide pain medication.**

OR

(C) _____ *(Initials)* **I do not want any medications, machines, or other medical procedures that in reasonable medical judgment could keep me alive but cannot cure me, except as follows:**

Initial each statement that you want to apply to option (C).

_____ *(Initials)* **If I am unable to take nutrition by mouth, I want to receive nutrition by tube or other medical means.**

_____ *(Initials)* **If I am unable to take fluids by mouth, I want to receive fluids by tube or other medical means.**

_____ *(Initials)* **If I need assistance to breathe, I want to have a ventilator used.**

_____ *(Initials)* **If my heart or pulse has stopped, I want to have cardiopulmonary resuscitation (CPR) used.**

8. Additional Statements

This section is optional. PART TWO will be effective even if this section is left blank. This section allows you to state additional treatment preferences, to provide additional guidance to your health care agent (if you have selected a health care agent in PART ONE), or to provide information about your personal and religious values about your medical treatment. For example, you may want to state your treatment preferences regarding medications to fight infection, surgery, amputation, blood transfusion, or kidney

dialysis. Understanding that you cannot foresee everything that could happen to you after you can no longer communicate your treatment preferences, you may want to provide guidance to your health care agent (if you have selected a health care agent in PART ONE) about following your treatment preferences. You may want to state your specific preferences regarding pain relief.

_____

_____

_____

9. In Case of Pregnancy

PART TWO will be effective even if this section is left blank.

I understand that under Georgia law, PART TWO generally will have no force and effect if I am pregnant unless the fetus is not viable and I indicate by initialing below that I want PART TWO to be carried out.

_____ *(Initials)* **I want PART TWO to be carried out if my fetus is not viable.**

PART THREE—Guardianship

10. Guardianship

PART THREE is optional. This advance directive for health care will be effective even if PART THREE is left blank. If you wish to nominate a person to be your guardian in the event a court decides that a guardian should be appointed, complete PART THREE. A court will appoint a guardian for you if the court finds that you are not able to make significant responsible decisions for yourself regarding your personal support, safety, or welfare. A court will appoint the person nominated by you if the court finds that the appointment will serve your best interest and welfare. If you have selected a health care agent in PART ONE, you may (but are not required to) nominate the same person to be your guardian. If your health care agent and guardian are not the same person, your health care agent will have priority over your guardian in making your health care decisions, unless a court determines otherwise.

State your preference by initialing (A) or (B). Choose (A) only if you have also completed PART ONE.

(A) _____ *(Initials)* **I nominate the person serving as my health care agent under PART ONE to serve as my guardian.**

OR

(B) _____ *(Initials)* **I nominate the following person to serve as my guardian:**

Name: _____

Address: _____

Telephone Numbers: _____

(Home, Work, and Mobile)

PART FOUR—Effectiveness and Signatures

This advance directive for health care will become effective only if I am unable or choose not to make or communicate my own health care decisions.

This form revokes any advance directive for health care, durable power of attorney for health care, health care proxy, or living will that I have completed before this date.

Unless I have initialed below and have provided alternative future dates or events, this advance directive for health care will become effective at the time I sign it and will remain effective until my death (and after my death to the extent authorized in Section (5) of PART ONE).

_____ *(Initials)* **This advance directive for health care will become effective on or upon _____ and will terminate on or upon _____.**

You must sign and date or acknowledge signing and dating this form in the presence of two witnesses. Both witnesses must be of sound mind and must be at least 18 years of age, but the witnesses do not have to be together or present with you when you sign this form.

A witness:

- *Cannot be a person who was selected to be your health care agent or back-up health care agent in PART ONE;*
- *Cannot be a person who will knowingly inherit anything from you or otherwise knowingly gain a financial benefit from your death; or*
- *Cannot be a person who is directly involved in your health care.*

Only one of the witnesses may be an employee, agent, or medical staff member of the hospital, skilled nursing facility, hospice, or other health care facility in which you are receiving health care (but this witness cannot be directly involved in your health care).

By signing below, I state that I am emotionally and mentally capable of making this advance directive for health care and that I understand its purpose and effect.

_____ _____

(Signature of Declarant) *(Date)*

The declarant signed this form in my presence or acknowledged signing this form to me. Based upon my personal observation, the declarant appeared to be emotionally and mentally capable of making this advance directive for health care and signed this form willingly and voluntarily.

_____ _____

(Signature of First Witness) *(Date)*

Print Name: _____

Address: _____

_____ _____

(Signature of Second Witness) *(Date)*

Print Name: _____

Address: _____

This form does not need to be notarized.

Advance Care Planning & Grief Pre/Post-Test

Years working in MAT: _____

Level of education: _____

Number of patients at your clinic: _____

Please list your previous training in aging?

1. A lawyer needs to be present when filling out advance care directives
    a. True
    b. False

2. I should only fill out advance care directives if I am sick or near the end of my life
    a. True
    b. False

3. Grief affects us physically, mentally, emotionally and spiritually
    a. True
    b. False

4. Grief and bereavement are the same thing
    a. True
    b. False

5. Anger is an unusual response to grief
    a. True
    b. False

(Cunha, 2017)

Advance Care Planning & Grief Pre/Post-Test KEY

Years working in MAT: _____

Level of education: _____

Number of patients at your clinic: _____

Please list your previous training in aging?

1. A lawyer needs to be present when filling out advance care directives
    a. True
    b. False

2. I should only fill out advance care directives if I am sick or near the end of my life
    a. True
    b. False

3. Grief affects us physically, mentally, emotionally and spiritually
    a. True
    b. False

4. Grief and bereavement are the same thing
    a. True
    b. False

5. Anger is an unusual response to grief
    a. True
    b. False

Module 2 – Advance Care Planning & Grief Evaluation

Years working in MAT _____

1. What did you like about today's session?

2. What else do you wish would have been covered in this session?

3. What can we do to improve the training session and how the material was delivered?

4. Would you recommend this training session to other OTP providers?
    a. Yes
    b. No

Modules 1 & 2 – Introduction to Aging Curriculum Evaluation

Years working in MAT _____

1. What did you like about today's sessions?

2. What else do you wish would have been covered in these sessions?

3. What can we do to improve the training sessions and how the material was delivered?

4. Would you recommend this training to other OTP providers?
    a. Yes
    b. No

Appendix E: In-Depth Interview Guide for Opioid Treatment Providers

"Identifying Best Approaches to Assess Support Needs of Older Adults Receiving Medication Assisted Treatment for Opioid Use Disorder"

Staff Interview Guide

Participant Code _____ **Facility Code** _____

Interviewer _____ **Date** _____

Interview Start Time _____ AM PM

Interview End Time _____ AM PM

1. Tell me a little about your background and experience working in medication assisted treatment. (Use the answers from the demographic sheet as a starting point)
    a. Do you have experience in other kinds of substance abuse treatment? describe
    b. Describe any training or education you have related to substance abuse treatment or medication assisted treatment.

2. What do you think are some of the unique needs of people over the age of 50 engaged in MAT?

    a. Do you see any differences in terms of social support or social networks?
    b. Probe for:
        i. Differences by length of treatment/age at entry
        ii. Differences by medication type (Methadone, buprenorphine).

3. Specifically, what are some of the healthcare needs of your patients? (probe for specific and co-occurring conditions such as HIV, HepC, polypharmacy, and other geriatric syndromes)
    a. How do you manage their needs?
    b. In what ways are the needs of older patients different from younger patients?
    c. How have the healthcare needs of patients who have been in treatment for a while changed? OR how have the needs of patients changed over time?

4. What are some of your concerns treating older patients?
    a. Concerns about compliance
    b. What concerns, if any, do you have about cognitive function or decline?
    c. What concerns, if any, do you have about financial stability/vulnerability and their ability to remain in treatment?
    d. Transportation limitations?
    e. Differences from younger populations?

5. What are some of the rewards of treating older patients?
    a. Differences from younger populations

6. Do you have any training in aging or managing multiple chronic conditions?
    a. What kinds of (additional) training do you think would be useful for you?

7. To what extent have any of your patients engaged in any kind of advanced care planning or planning for the future?
    a. How, if at all, do they talk about the possible need for care if they are unable to care for themselves? Or have they talked about providing care to others in their social networks?

8. As you know, MAT is still a stigmatized treatment modality. What do you wish people in the community knew about MAT?
    a. What are some of the more pervasive myths and stigmas surrounding MAT that are difficult to combat?
    b. Have you worked with patients who face multiple stigmas (e.g., MAT/OUD/HIV and mental illness)? Can you describe those experiences?

9. What do you think needs to happen to change negative attitudes and perceptions?
    a. What kind of information do you think a study like this can help provide? (probe for different stakeholders – patients, providers, family)
    b. Probe for differences by age, area of the state, other demographic characteristics of patients.
    c. What can we, as researchers, do to help change negative attitudes?
    d. What can we do to prevent falling into the same trap as everyone else.

Interviewer will explain the goals of the future study

Interviewer will share feedback from focus groups (as appropriate) and share proposed instruments to receive feedback

10. Based on what you have heard so far, tell me about your initial impression of the study.

11. What kinds of things would you suggest to improve or change the study?
    a. What are some of the barriers or obstacles you think we might encounter?
    b. Can you think of anything we might be missing? What and how can we address it?

12. What are some of the things you like and think we should keep the same?

(FOR BOTH QUESTIONS 11 and 12, make sure we cover these main items below)
    i. Location of study

ii. Time of day
iii. Length of assessment
iv. Interviews v. surveys
v. Health assessments
vi. Clinic v. researchers

13. Based on our discussion today, do you have any additional thoughts? Recommendations?

14. As we interview additional stakeholders, are there questions I didn't ask that you think are important to ask?