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## Dementia Management: Techniques for Staging and Intervention

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- [Calista] At this time, it is my pleasure to introduce Dr. Kathleen Weissberg. In her 25 years of practice she has worked in adult rehabilitation, primarily in long term care, as a clinician manager researcher and most recently, as education director was select rehabilitation, where she oversees continued competency and education for close to 12,000 therapists in her role she conducts and audits and provides denials management and quality improvement planning training for more than 700 LTC sites worldwide. She also conducts compliance ethics training for therapists. Kathleen has also authored several publications that focus on patient wellness, fall prevention dementia management therapy documentation and coding and billing compliance. At this time, I hand the mic over to you Dr. Weissberg.

- [Kathleen] Thank you so much for the introduction. And I will echo that thank you so much for everyone joining in today and for two hours to talk about dementia management, this is my niche. I'm actually a certified dementia practitioner and also certified in the Montessori method for dementia, so this is my passion and so hopefully today will impart what I think are just some, I don't want to say basic because nothing is really basic in our industry but some strategies that every one of us can use in it regardless of who our discipline is or what our discipline is to help the individuals that we serve, to be more functional in their setting so that's our goal for today. So let's start off with our objectives.

After this course, you should be able to identify at least at least three stages of dementia, there are three sometimes four, including some of the related behaviors and abilities that we would see at those stages. Some standardized assessments at least two of those to accurately stage residents with dementia, identify at least four treatment interventions and activity adaptations for patients with dementia, and to discuss at least two appropriate documentation strategies to reflect skilled intervention. So before I go on I just noticed that on this slide and it's important for me

to say I may use terms interchangeably, patient, resident, individual, person. Just know that I'm always referring to that individual who has dementia, as I use those terms. So I thought we would do is really just kick off and start by talking about cognition and an understanding of cognition, how it works. So if you look at the definition, it's pretty simple. It's the process of thinking of perceiving of learning and specific cognitive functions are listed here and these aren't all of them, but decision making spatial orientation, it can be thinking reasoning attention orientation, problem solving, direction following all of those things.

And you might be sitting there saying well okay this is great, how does this impact me as a PT, or PTA, it definitely does, and while you may not be doing the standardized formal cognitive testing perhaps that a speech language pathologist or an occupational therapist would be doing. You still have to do some functional cognitive testing I believe because you need that baseline if you think about it, cognition impacts everything so even if you're working with that individual, you know on gait or transfers or bed mobility, you need to know, can they follow your directions, can they attend, what is their sequencing what is their safety, and the list goes on and on so again you may not be doing a formalized evaluation, but you still need to know what their cognition is and this is just my bend on it, take it for what it's worth.

I like to get that myself that functional piece of that I certainly gather the information from my colleagues as they test, but I like to know what is that person doing during my functional tasks as well. So that's cognition, I do want to take a few minutes and talk about memory as well because memory is going to impact how we deliver our intervention so the definition pretty simply put the ability of the mind of a person to retain learned information or knowledge past experiences past events, and then be able to retrieve that information be able to utilize that for some other purpose. When we look at long term memory, which is a lot of what we're gonna pull from I think for the individuals that we work with who have dementia, there's two main categories and

you've heard these probably before procedural memory and that's our memory for how to do things. It guides those processes that we perform most frequently. It really does reside below the level of conscious awareness. And when we need it, those procedural memories we just automatically retrieve them, and we use them for both cognitive and motor skills. It's when we look at procedural memory, it is created through procedural learning or repeating a complex activity over and over again until all of those neural systems in the central nervous system work together to actually produce that activity so these are those things you've heard this before tying your shoes reading, writing, things that maybe you've done your whole life as an activity or something related to your work. And I do want to pause for just a moment, because when we look at procedural memory it is created through what I just said procedural learning repeating a task, over and over again.

And so when we think about the individuals that we're going to work with with dementia. Is there an opportunity for them to quote unquote learn, possibly it's really going to depend on the stage that they're at, if they're in the early stages of dementia or maybe in those middle stages by repeating something over and over again, and we may not be doing that in physical therapy as a skilled intervention maybe that would be nursing who would do that. The practicing kind of stuff. But there is a possibility perhaps that they could learn.

So the other piece of long term memory is declarative memory, and this is stored in the hippocampus, and which if you're familiar with the hippocampus, it is one of those first areas of the brain that starts to break down we start to see demyelination there as that individual is diagnosed with and progresses through the stages of dementia so it's stored in the hippocampus, and it's all those consciously available memory so factual types of memories like meanings of words and different things like that. Episodic memories, so those are specific events or experiences. So again, that semantic memory again, it's you know the months of the year it's the holidays, it's your

multiplication tables, but that episodic memory is really important because those are again those personal experiences those specific events, you know memories of your first kiss remembering what happened at the last you know basketball game you attended the last meal you ate, whatever the first time you met your partner, whatever that is, again, I am spending just a minute on this because it is critically important, as that person progresses through those stages of dementia, declarative memory decreases. This is why again maybe at those earlier stages with a lot of repetitive practice from nursing or restorative they might be able to quote unquote learn, but oftentimes, by the time we're treating them in therapy we're trying to give them a walker or a cane or a piece of adaptive equipment or durable medical equipment, and they can't carry it over they can't follow through, because they don't have that declarative memory procedural memory for the most part, will stay so that if that person has historically used a walker or a cane, chances are pretty good they'll still be able to do that but maybe not learn something new.

So, let me advance the slide, there we go. You think about the things that you typically forget. I don't know about you, I can never seem to find my keys, I forget people's names, almost instantaneously after they tell me today I was running an errand and I forgot at least three things inside the house and it took me three different trips to go get them. Because I just couldn't pull it together apparently to get everything on one trip and sadly that's a little normal, but think about it you know we get frustrated about that and you hear us say I used to be so good at remembering all these things and I'm just I'm just not there anymore. Like the rest of our body, our ability to remember on the spot slows down as we age and there's very little we can do about it other than to be conscious that it's happening. Try to do better to store information. And maybe we use some strategies, I travel a lot for business and I will typically park in the same parking garage at the airport and literally try to get on the same floor so that I can remember where my car is, we write ourselves post-it notes or send ourselves voice reminders and again that's very very normal. When we, as we age what's happening the gray

matter volume begins to decrease somewhere around the age of 20 with the atrophy I know that's sad isn't it with the atrophy occurring and it is most prominent in the prefrontal cortex, which is really responsible for our executive functioning our reasoning our problem solving. The white matter volume decreases as well at a much greater a much faster rate a much faster volume than the gray matter a lot of changes, both in white matter structure and function, particularly in the area of the corpus callosum and the hippocampus, which again, may explain these memory changes with normal aging so again what we're talking about here is normal. We have increased sensitivity to distractions I don't know about the rest of you that happens to me. But again, translate that into your normal elderly client and even more so your client who has dementia. You bring them into the crazy busy gym.

How well are they going to be able to attend? Probably not as well as if you had a nice quiet, very, you know, functional fostering type of environment. We are less efficient at processing new information and the research shows that we start to lose our capacity, about 1% each year after the age of 30 and again for all of you on this call I apologize if if that's you know, it's me, obviously, too. So when again, we look at normal aging and memory I think the thing that I want to stress here is that memory loss. So true memory loss is not normal.

And that is not a normal part of the aging process again while it's may take us a little bit longer to learn new information, you know you just got a new phone and you have to figure out how to work it or a new computer program, or recall learned information you know the name of your high school friend in a photograph or something that is again very very normal memory loss is abnormal. What is preserved as we age is what we just talked about that procedural memory the episodic synaptic recall so again that general information so you could even say to a person who has dementia, You know what month is the you know the Christmas holiday and or something like that that most people would know. Declining memory functions as we just said learning new

information, and recalling information. Now before we go into types of dementia and what that looks like I do want to talk about two other things and these are age associated memory impairment and mild cognitive impairment because you hear that terminology, quite a bit, with our elderly clients. So age associated memory impairment often takes the form of what we call memory lapses older memories. Memories of personal information again tend to survive very well into old age. But individuals with age associated memory impairment may show that kind of memory decline. But it is still within the realm of normal for their age group so that's really important. This age associated memory impairment is just really a label for the general degradation of memory which results from aging it's a very natural process we see it in animals we see it in humans starts around in our 20s gets noticeably worse as we reach our 50s. And while some specific abilities again do decline with age overall memory should stay strong for most people, even through their 70s, and beyond.

Episodic memory again may become a little impaired but not procedural or that implicit memory. Now mild cognitive impairment. This is a little more severe memory decline. This is if you will this intermediate stage. If you want to think about it that way is between the expected cognitive decline which is very normal. And then that more serious decline which is dementia, and it can involve issues with memory with language with thinking with judgment that are again greater than the normal age related changes. If you have mild cognitive impairment, you may start to be aware that your memory or your mental function is starting to slip, your friends, your close family or close friends may also notice some of those changes. But they're generally not severe enough to interfere with day to day life and usual activities. So we sometimes see this, I just throw this out there again because this is oftentimes a diagnosis that is given to some of our residents. And you see those subtle changes in cognition, but again, that person is still very very functional but you've been called in as a therapist to do something and you're kind of stymied like what do I do so again you're working on some of those higher level things related to executive function and reasoning again as

it relates to that person's mobility their transfers et cetera. Now mild cognitive impairment, there are some studies out there one is quoted here. The talk about increasing your risk of later progressing to dementia and between 10 and 20% of patients with mild cognitive impairment, actually progress to something blown dementia within 12 months. Some people never get any worse and some get better so it's not an absolute, but we do see some percentage progressing. Okay, so let's now start talking about what is dementia. When we look at dementia. Oh, and this is posted from ICD-9 I apologize, I should say 10. Dementia refers to a loss of cognitive function because of changes in the brain that are caused by disease or trauma again you've seen this every one of us I'm sure on this training today. We either work with someone who has dementia, probably many more of us know someone personally a family member, your mom, your dad you know your partner your spouse, a neighbor, somebody who has dementia.

We know that those changes can happen very gradually or they can happen very quickly and how those changes occur really determine whether or not that dementia is reversible or irreversible. And we'll talk about what that means here in just a second. That depending on the area of the brain that's affected with dementia there can be behavioral and personality changes which of course we're very familiar with. And again, what we're looking at with dementia is this group of symptoms that are caused by changes in brain function impairment in memory, and then at least one domain of cognitive function that results in a decrease, and an impairment in daily living activities and again when we talk about daily activities that's not just ADL that's obviously mobility and such. And you see some common behaviors, which we'll talk about in just a minute things like asking the same questions over and over again, or being disoriented. And those abilities again are going to be lost at different rates, depending on the person. So a little bit of background on the incidence. As we already said dementia refers to these impairments in cognitive and intellectual ability memory, language reasoning judgment everyday function. An estimated five million Americans

have dementia more than 15 million people provide unpaid caregiving to these individuals dementia, as we know, primarily affects older adults but it can affect younger individuals as well. At approximately 14% of those 70 or older actually have dementia. I'm not telling you anything you don't know it is the most challenging problem one of the most if not the most challenging and costly diseases to treat in the United States, over \$215 billion spent on dementia care in 2010 and obviously that's gone up since then. Caregiving is the most costly aspect and some of that is informal. So that's friends and family that's formal long term care therapy, and the like. And we as caregivers whether we're therapists, we're nurses we're family members, we're dealing with a lot as it relates to dementia, there's a lot of behavioral and psychological symptoms.

And there's a lot of difficulties and the more symptoms, we have the more behaviors we have, the greater the cost of care. 5.2 million Americans are over the age of 65. That's one in nine people having Alzheimer's or related dementia. For anybody 85 years or older that's one in three Alzheimer's disease related dementia projected to more than triple to 16 million individuals by the year 2050. It is estimated that 75% of persons with Alzheimer's or related dementia, are admitted to a skilled nursing facility versus 4% of the general population. These are individuals that it's very difficult to forgive them I'm going to use the terminology manage at home, and we rely on institutions. I think this may come up on another slide too but it's the sixth leading cause of death, but it's the only disease in the top 10 that cannot be prevented or cured. And we're gonna start talking about the types of dementia and starting with Alzheimer's because it is the most common 60 to 80% of all cases of dementia are Alzheimer's type. There's a slow progressive decline in cognition and function. The most common early symptom is remembering new information at those earlier stages what we start to see and we'll talk about this on another slide too is apathy and depression and that person just not being themselves not having the spark that they used to when we get later in the disease we see more of that communication issue

confusion, difficulty speaking swallowing, and the like. And what we see in the brain here is particularly in the parietal lobe, and the temporal lobe, the presence of the plaques and tangles and if you've ever seen those like under microscope or on a cross section. They are build up of excess proteins in the brain that ultimately as they start to surround different neurons, kill off those neurons and along with those plaques and tangles we see a decrease in very specific neurotransmitters within the brain, so that the the synapses the communication between the neurons decreases quite a bit as well. 44 million people worldwide have Alzheimer's disease or a related form of dementia, about two thirds of Americans are women who have Alzheimer's disease are women.

That's about 3.3 million women and about two million men. Interestingly enough, Alzheimer's disease and dementia is actually more common in Western Europe with North America shortly or closely behind least common in Sub Saharan Africa. African Americans are about twice as likely to have Alzheimer's disease or other forms of dementia, as Caucasians, Hispanics about 1.5 times more likely reports from the National Institute of Aging indicate that the prevalence once you hit the age of 65 it doubles every five years after that. And they say that someone in the United States develops Alzheimer's disease about every 66 seconds.

When we look at the mortality rate I just said that it's the sixth leading cause killing more people than breast cancer and prostate combined and since 2000 deaths have increased by 89%. It's estimated as we said that one to four family members act as caregivers. And you can see the global cost \$605 billion to address this. The reality is, the life expectancy is only about four to eight years after diagnosis and again that will be really dependent on that person where they are in the diagnosis process early late, et cetera and we'll talk about that in just a second. just staggering staggering statistics. Some other types of dementia, and you've probably seen a lot of these frontotemporal lobar degeneration you've always known this probably as Pick's Disease. This impacts

individuals at a younger age around 50 to 60 and more common in women than it is in men. And what you'll see are significant changes in behavior and language. And because it affects the frontotemporal lobes, we start to see declines in reasoning and executive function and emotion and all of those typical things that we would see breakdown. And not that they're the same but something more like a head injury where that person may be a little disinhibited. The data shows that it impacts about 50 to 60,000 persons annually. Lewy Body disease, you've seen this i'm sure as well, in the clinic. The hallmark here is that impaired executive function perception and memory, though not to the extent of Alzheimer's disease. And you see a lot of fluctuations in this person so if you have a caregiver you'll hear them say oh you know my mom did this in the morning and she was this way but by afternoon she was this way. And we see these wild fluctuations, if you will, where the person could be very euphoric at one moment and just not, not all that long after we see visual hallucinations typically animals and people, a lot of autonomic nervous system issues, sleep disturbances, and the motor function is very similar to something like Parkinson's.

The reason there are Lewy bodies, which are abnormal proteins very similar to Alzheimer's disease in the neurons and in the glia in the brainstem in the cortex. And interestingly enough, you oftentimes, know that it's not Alzheimer's because some of those typical medications that we use to address Alzheimer's like numenda and stuff like that don't work on these types of diseases in fact tend to make the symptoms even worse. Third most common type of dementia, which you may or may not have known that after Alzheimer's disease and vascular dementia accounting for about 10 to 25% of all cases. Korsakoff Syndrome, and these are other disorders caused by substance abuse or medication so memory loss confabulation typically spared social cognition, particularly related to alcohol abuse. The brain pathology here we see a thiamine deficiency. And this is one of those situations where yeah if it's advanced or there's been a lot of alcohol or medication abuse it may not be reversible. But it could be something that, again, is in those earlier stages and could be reversible. Vascular

dementia, I mean we previously knew this as multi-infarct dementia again it's really just gonna depend on the area of the brain that's impacted as to what our symptoms are going to look like. Again, you'll see inadequate blood flow to the various cortical areas, it's the second most common after Alzheimer's dementia, and it accounts for about 20 to 30% of the cases. Again, I'm not telling you something probably you don't already know but if a person does have vascular dementia. That doesn't mean that they can't also have something else, they could possibly also have, you know, a Parkinson's on top of that or something else, some other type of dementia. HIV associated dementia. So, this also known as the AIDS dementia complex and HIV encephalopathy, so you can certainly read the slide cognitive motor behavioral impairments social withdrawal unsteadiness clumsiness. And this is because there's damage primarily in the frontal cortex, there's demyelination there.

There's breakdown in the thalamus, there's breakdown in the basal nuclei, that all impact obviously those things that we would see some of the severe disorders, 20% of cases are very very severe typically though we see more of the milder disorders in individuals who have HIV about 50% of the cases would be in that class. Prion disease, you've probably heard of Creutzfeldt-Jakob this is the most common, it's a rapidly fatal disorder.

You see this rapid decline in thinking reasoning confusion mood. And you see motor symptoms like ataxia myoclonus. And again it's being caused because there are prion proteins in the brain which, if you're not noticing a lot of these are caused by different proteins in the brain that don't belong and become toxic to the neurons. And we see about 350 cases every year. Just a few more very familiar here obviously Parkinson's disease. Cognitive symptoms very similar to Lewy Body about 50 to 80% of the 1 million people who do have Parkinson's also have cognitive decline that's really important. You can have Parkinson's symptoms without having any sort of cognitive impairment. Huntington's Disease probably also very familiar with this one the onset

here is again a little bit younger 30 to 50 years of age, you see those involuntary movements that the patient just can't control, and again about 30,000 cases one in every 10 so not as common. And then of course the multiple etiologies, multifactorial again, there's one type of cognitive disease and then maybe something else so there's a vascular disease as well just what we talked about. So those are the types of dementias that we see and I mentioned you know reversible versus irreversible, you think about the clients that we are seeing how many of them have UTI who might be dehydrated who might have something else going on even a brain tumor or something like that, that is quote unquote reversible we see these cognitive issues are very similar to Alzheimer's or dementia, but it's not truly Alzheimer's or dementia, it's something more temporary that can be resolved, or reversed, if we just treat that. Now there are some modifiable risk factors and some of these are pretty interesting. There's the classic cardiovascular risk factors.

And so, hypertension, for example, can lead to vascular related cognitive impairment hyperlipidemia as early as 2003 they were looking at autopsy studies that looked at as an association between amyloid deposits in the brain and high cholesterol. So high fat, high cholesterol increases the risk of mild cognitive impairment, and some studies have actually shown that there's a very protective type of connection between the statins for cholesterol and cognitive impairment, diabetes, not a cardiovascular risk factor per se, but it certainly affects the cardiovascular system, and was classified by Etgen and colleagues, the longer the duration of diabetes, the lack of anti-diabetic medication, and the higher number of hypoglycemic episodes were highly correlated with the risk of cognitive decline. So, again, think about our patients who have type two diabetes and it's not being managed, could we be at risk for dementia? Metabolic factors, chronic renal failure. This is a reasonably new independent risk factor for cognitive decline. Vitamin B12 deficiency, the prevalence of this increases with age, and that is also linked to mild cognitive impairment, but let me talk about the next one and then I'll go back. Vitamin D deficiency is the same. And there's some, there's a play the part

obviously in the synthesis of neurotrophic factors and neurotransmitters so the lack of Vitamin D may lead to some cognitive impairment. But here's what's interesting substitution or supplementation or what have you, does not necessarily so you don't have enough vitamin D or might have vitamin B12. Okay, I'm going to take an herbal supplement or I'm gonna take a vitamin supplement. You, the studies have shown that you need to get that from diet not necessarily from a supplement, in order to make an impact on cognition, so that's kind of interesting from the study. Excuse me, other factors endocrine factors.

So testosterone deficiency and estrogen deficiency, again, very similar substitution for these as we age, does not necessarily it's not recommended for the prevention of cognitive decline thyroid dysfunction so either hypo or hyper thyroidism is one of those potentially reversible causes of dementia. And it could play a factor in mild cognitive impairment lifestyle factors diet Mediterranean diet is obviously the recommended so fish fruit, vegetables, et cetera. Physical activity, that goes without saying, particularly as we see a reduction in those cardiovascular diseases by doing so. Alcohol consumption, alcohol is neurotoxic.

So, as is smoking so when we look at, you know, those two things where we can decrease those that has an impact on cognitive impairment as well. So some key points there are some modifiable risk factors that chronic renal failure is a new factor and substitution therapy is not generally recommended stop smoking, exercise, low alcohol and eat a good diet. There are other risk factors though heredity family history, more likely to develop it, individuals with Down Syndrome and we're seeing those individuals living a much longer life expectancy and individuals who have Down's have plaques and tangles too in their brains as they get older, very similar to the plaques and tangles that we see in Alzheimer's. Health problems we just talked about. Maybe environmental factors brain trauma possibly can trigger a degenerative process. The reality is, again you know this, we don't know exactly what causes dementia, some

links have been identified. But, you know, past that, it sounds like diet and exercise which obviously you as physical therapists and assistants will have a huge impact on promoting a positive diet and exercise and healthy living in your clients will certainly help. So let's talk about the stages of dementia in a little more detail now. So, we can always have a look at dementia as a series of stages and you'll notice text on here. It really depends on what literature you look at as to what the stage of dementia is so for example if you're looking at Alan cognitive levels. It's gonna call these stages, one thing versus if you look at the global deterioration scale, there's different stages. The Alzheimer's Association still goes by three typical stages sometimes you'll see a fourth stage in there.

End stage or fourth stage, but you'll hear mild early or first moderate middle, what have you. So again, just know that they go by different names. I think what we need to know is, and again I think this is probably intuitive, that it's just a general guideline as to the course of the disease sometimes you'll see them overlap. But other times, you won't. Sometimes, you know the person will be able to manage activity on their own, and then they go into another stage and that symptom totally disappears. Some things get worse over time, et cetera.

The way we experience Alzheimer's or dementia is gonna depend on a lot of factors, your own physical make up, your genes your history, those types of things, and the support that you can rely on what's going on in your environment it's very very individualized. Again, just general the mildly stage or that early stages about two to four years and again, the reality is we may not see those individuals, unless perhaps maybe we're in an outpatient or a home care type of environment. Oftentimes, they're not in skilled nursing, unless you know perhaps you know they're a short term Medicare Part A patient may be coming in for another reason. Those individuals are typically still at home. Moderate state and in between two and 10 years, and then that severe stage is one to three. Again, it's very individualized I think about my aunt who

did in fact have dementia, and I remember her mild stage very very vividly because was still living at home. Her moderate stage lasted pretty much the rest of her life she never progressed to the severe stage. So again, it's very individualized. But what do you see we already alluded to some of this I'm not gonna hit on every one of these bullet points you can certainly read them but early stage of dementia. They lose interest in hobbies or activities and I question sometimes. Do they really lose interest or are they starting to recognize themselves that they're declining and some of this and maybe they're not as good at that activity as they used to be so to us on the outside it looks like they're losing interest but to them, they recognize that they're declining. They show poor judgment, poor decisions.

They're slower to grasp complex ideas longer to do routine jobs we start to see them are separate even doing things over and over again. Very common we see them stealing us blaming someone for stealing something that they lost or misplaced. They're more self centered, they are forgetful of recent events. Short term memory loss is what's going on here and again we talked about long term memory which over the course of time is generally preserved. Short term memory is not, they have difficulty with complex tasks. We may see fear or anxiety with new or unexpected situations or with relocation or being left alone, so again you think about a person who might be coming in short term and they were at home or the hospital.

And now here they are in skilled nursing. This is a relocation or even the hospital for that matter. You may see behaviors fear, anxiety, they use denial as a defense mechanism. Difficulty handling money or finances. What does this person look like? The reality is they look pretty normal. They wear their what we call their trappings so they carry their purse or their pocketbook their wallet. They wear their eyeglasses their dentures, good social skills, no real changes in posture, or gait. They have knowledge of their past their present, they can retain the ability to form a thought to plan actions and to follow through. We do though start to see wandering or exit seeking behavior

and again it could be very much because that person doesn't know why they're in this location. Why am I here there's nothing wrong with me, I should be at home. We do see delusions, tearfulness et cetera. For the most part, when we say ADL is relatively intact we need mean all activity so transfers gait, bed mobility dressing eating grooming, all of those things. We may see again, trouble with planning coming up with the right word maybe not remembering your name, even though you've introduced yourself 10 times to them. When we get to the middle stage this is moderate dementia, those problems aren't even problems the behaviors, if you will, are more apparent and more disabling this person is more confused is more forgetful. We may see inappropriate behaviors more apparent at this stage, this person could become angry, upset, they're frustrated a little more easily.

So confusion regarding time or place. This is that person who if they're not in a familiar setting they get lost. They forget the saucepans they may go out. I think it's on the next slide, they go out at night, wearing only their pajamas. This is that person that you hear on the news. The Silver Alert, because they're not home and their family members can't find them. They start to become repetitive and those deficits really start to show up even more.

And they present with more fear and anxiety towards those deficits. They could pose a safety risk to themselves, to others, they start to become neglectful of hygiene or eating particularly if they're still at home again that's oftentimes that hallmark like wow I need to do something now we need to may look caregivers or a placement into an institution this person starts to look unfinished maybe they don't want to change their clothes, they start to, you know, they put in their dentures and they take them out after they put them on, we start to see speech and language deficits here, difficulty using common objects even objects that they've used their whole life, we might see neglect of one side of the body. We may see hallucinations, which ultimately those hallucinations may be a description of pain and we're gonna talk about pain in just a

little bit, but you know they're seeing something and we need to be savvy enough at this stage to say maybe that's pain and I need to interpret that we start to see now changes in posture and gait. We may see, loss of peripheral vision so again you're walking with this person and they don't seem to notice any hazards in the environment, or, you know, they have more falls or different things like that. This person starts to give up their previous responsibilities. So, the person previously may have said oh I have to go get my daughter from school or something like that. This person is giving those up. We started to see more wandering self stimulation which for us is really important because if this person doesn't have peripheral vision if they're having difficulty using an assistive device and they're wandering.

We've got to figure out how to set up that environment so that they remain safe. They are engaging in repetitive types of things this person might be the social butterfly. This is the person who maybe hangs out in the gym all day just looking for that connection to someone. They also have resistance to care there's this the person who also might be refusing. And again, I think we've talked about the moody withdrawn there's a lot of changes in sleep patterns so we start to see them sleeping during the day, restless at night, and that's not helping them at all particularly as it comes to therapy for participation.

And then we come to the late, or the end stage of dementia and this is severe dementia, and oftentimes in this stage that person is severely disabled. Generally speaking, they'll require total care. And it's in this final stage that they oftentimes lose the ability to understand or use speech, but they can still understand gestures, they can still understand facial expressions, they may not be able to walk or do any sort of mobility. They may lose a more cognitive types of experiences, but they still remain able to interact, using their sensory side of things they are still very sensory oriented so oftentimes again no recognition of friends or family. They might be disturbed at night they are total assist. Oftentimes they can still walk, sometimes they are confined to the

wheelchair, we see those uncontrolled movements and immobility. This is that person again there's significant gait posture balance deficits. So we've gone from somebody very upright to, you've probably seen this person that kind of hunched over their walker hunched over their cane, and they have that downward restricted gaze, they're looking down at the floor, they're not looking up at their environment they're not interacting, and they look, I hate to say it, they look abnormal.

They look kind of lost in thought, if you will, they experience all of these different inabilities but they will still have that sensory side and that's how we're going to communicate with them. I will tell you this is probably, I think for all of us as therapists maybe I'm just speaking for myself, I think it's the toughest stage because you do see this person declining. But there's still so much that remains. And there are still things that this can do for themselves. And then it's up to us as therapists to come back is to the caregiver or nursing. Yes, they can do this or they can do that. Here's how you have to approach them, here's how you have to interact with them and it's a teaching type of thing.

Why might the person be referred to therapy obviously you can read this slide and I do believe this is probably one of your test questions. Positioning restraints issues with balance, issues with falls, contractures, range of motion. Somebody's not participating they used to go to activities well now they can't get up into the wheelchair and they need help to do that. One of the big things the caregiver doesn't understand cueing and we'll talk about cueing in a little bit but I don't need to look at any of your documentation every one of you on this session to know that you are exceptional at verbal cues. As are nurses, as are other caregivers, there's so much more than verbal cues there's tactile cues there's initiation cues there are gestural cues visual cues, auditory cues the list can go on and on. So trying to figure out what type of cue works for this person and how am I going to tap into that and again that's where you need to know what the stages of that person. Because at the end stage it's gonna be gestural,

it's gonna be visual at the early stage it's going to be very verbal. So why use a staging tool? You can obviously again, read this slide to figure out the baseline to figure out your intervention strategies figure out how you're gonna modify and train et cetera. Probably the only reason we wouldn't necessarily use a staging tool is for research in our facilities and again, maybe use it for that, but that is not your primary reason. It's really to understand where this person is in the disease process. And figure out what we can do to help that. But that's that I've listed and I'm not going to go through these in detail, just for the fact that I want to get into some of the other stuff as well. There are so many different staging tools out there that you can use and the vast majority of these that I've listed on this slide are available in the public domain for you to go out and take a look at it there's others that I didn't list here like the Alan Cognitive level. The MOCA which you know, very soon we're going to have to be certified to use.

The Mini-Mental has been the gold standard, obviously, the FROMJE you're probably not familiar with, it is, I'm gonna say it's kind of loosey goosey, it's the letters of that stand for very specific things function reasoning orientation memory arithmetic judgment and emotion. It's a very subjective scale, most of the clinician I use use it with say, oh gosh I don't like this because it is very very subjective, but it's great for that person who maybe is euphoric or that person who can't actually sit there and do some sort of standardized assessment with you. The next three the global deterioration scale the brief cognitive rating scale and the function assessment scale, were developed by Dr. Barry Reisberg who we're gonna talk about in just a second. And these are the same tools that the Alzheimer's Association would promote as well. It looks at seven stages of dementia. The global deterioration scale just describes those stages, the brief cognitive rating scale is the standardized assessment, and then the FAST the functional assessment is a screening tool perhaps that person can use or someone else to assist with the staging process, and along with the stages come very specific interventions in how we should approach people. The brief interview for mental status if you're working in long term care you know this, you've used it you've seen it

this is Section C of the MDS. And it can talk about how cognitively impaired that person is the Short Blessed is just what you think it is it is short, it's a super quick quick screening tool that looks at whether or not the person has normal cognition, or if they have cognition that might be consistent with dementia, the SLUMS maybe some of you are familiar with. It's kind of sort of similar, I think at least to the MOCA, and it looks at you know attention concentration orientation and again, there's the Summary Score, that can place the person you know at a mild cognitive disorder, perhaps with dementia. Some of these others test your memory maybe you're not familiar, this is a self administered test.

And I think it actually comes out of the United Kingdom, but it also has a scoring methodology, where it will point to if a person scores between this and this they possibly have mild Alzheimer's dementia moderate, or even a mild cognitive impairment, it's a little. It's a little more sensitive I think to some of those cognitive changes. The B-CAT is one that you do have to be certified I believe for and not have to pay for as well. And it's a multi domain type of cognitive screening. The SAGE, if you've never seen that one that is absolutely self administered it's a four page assessment tool that I've seen use like an outpatient types of settings, or even in home care that you can give to a person without assessing them.

And again, I go through that briefly all of these are available to you but my typical thing what I'll say to people is have options have options you may love the MOCA, you may love the Short Blessed, or the SLUMS or whatever. But if the person can't sit there and go through an assessment with you, what good is it? You're gonna need something else to figure out what stage of dementia they're in and again it may be just very obvious what stage they're in. It may not be so you want to have a lot of different things at your disposal. So with that I want to start talking more about interventions and starting with behaviors. You're gonna hear this terminology BPSD behavioral and psychological symptoms of dementia. And that's an umbrella term that's relatively new

to the literature, but it's defined by the International Psycho Geriatric Association as symptoms of disturbed perception thought content mood or behavior that occur in patients with dementia. Now when we look in the nursing home population anywhere between 67 and 78% of patients have dementia. And of those patients 76% of them have some sort of BPSD. Those are usually identified based on observation and again, think about what you see, yelling out pacing wandering resisting care disrobing hitting scratching biting, whatever. And unfortunately, the reality is, we label those patients we do we describe them as agitated aggressive disruptive problematic. Even in therapy, maybe you've heard this, oh she's just belligerent, she's not cooperative, those types, she just will not follow through.

Meanwhile, she has the BPSD. We've already talked about caregivers, but Alzheimer's related dementia, 12th most burdensome disease, as it relates to the caregiver and we are included in that. And I put this in here because this is I think that gets overlooked we talk so much about what we do in the therapy realm, I like to look past that and talk about what can we do for our caregivers, whether that's, you know, the significant other of that patient that we're working with our nursing staff, our volunteers whoever it happens to be.

And again, you're not going to necessarily do these as a PT, but you need to know about them. Where are their support groups that are available to people because the evidence is very very clear that attending support groups happens to help quality of life for our caregivers, which oh by the way makes them better caregivers, right, internet based support groups as much as we would love to think that they help don't help necessarily except perhaps with the millennial type of population. Reframing distressing beliefs. So, we as therapists can certainly help our caregivers, with stress reduction types of techniques right doing mindfulness based intervention teaching simple yoga poses or simple things that we can do to improve our mental health interventions and communication and again I'm not going to belabor this but the

strongest evidence for our caregivers came from communication skills and again you may think okay I'm a PT, that's speech's realm, it's not. You still need to be able to teach your caregivers. This is how you communicate with Mom, this is how you communicate with Dad if you give the cue, like this as you wait 15 seconds. She should be able to lock her brakes and stand up. So targeting how you should communicate task by task environment by environment and sometimes it really comes down to that. Using memory aids and again that mindfulness to reduce the stress. Home monitoring systems I find this really interesting and we might talk about this somewhere else, did nothing to help with caregiver worry did nothing to improve caregivers sleep, the home monitoring systems and even the ones that we have in many of our communities just tend not to work, because you're either stressing about it if you're home or if you're in the institution, they oftentimes get ignored.

And that's reality. Now when we look at a theoretical framework, specific to behaviors. There are four and we're gonna go through these just very briefly. The first is the biologic genetic and this talks about the behavioral disturbances being due to symptoms of dementia, meaning that the dementia causes changes in the brain that in turn results in problem behaviors, the behavioral model suggests that behaviors damage this relationship between the patients and the care environment. And in this model patients exhibit behavior in response to a stimulus, and in turn caregivers respond to the behavior with more attention so it becomes this vicious cycle, if you will.

The reduced stress threshold model we'll talk about in just a little bit, talks about an individual's ability to not be able to handle environmental stimuli. And then finally the unmet need which we'll talk about in just a second pain health discomfort, all of those sorts of things. So before we jump into those I want to talk about this theory of retrogenesis because I find this just really fascinating. This came about from Dr. Barry Reisberg the same person that I just mentioned, developed three of those staging tools.. And he talks about the loss of mental abilities in old age in the opposite order in

which they are gained in childhood. So if you think about it, normal child development begins in that primary motor area, we make gross motor movement head and neck we can suck we can swallow, what have you we start to improve gross motor movements over time. We develop fine motor control the ability to feed, develop communication skills ADL walking, et cetera. When you think about it, I would ask everybody if we were know in a room. What's the earliest memory you have? And most people will say, Oh, it was about three years old or four years old or five years old or whatever. And that's because my one of the last brain structures to be myelinated is the hippocampus which is responsible for memory formation.

So if you think about Alzheimer's. One of the first issues relate to memory formation. And eventually that disease progresses that person starts to regress if you will, to a point where they can no longer put on their clothing, maybe they're incontinent they can't walk, et cetera and then that primary motor area is one of those last areas affected in the late stages of dementia. This theory makes a lot more sense when you look at this PET scan. And if you look to the far left. This is a normal brain and these are two different cross sections of a normal brain and the orange and the yellow areas indicate normal brain activity.

Then we get to the early stage of Alzheimer's disease, you can see, we still have a lot of yellow and red going on here. When we go to late stage we have significantly less you'll see a lot more blue and green. And if you compare that to the same or similar cross section in a child's brain, they are exactly the same. So to that end, that theory makes a lot of sense and again I will tell you that it is a theory that Alzheimer's Association would agree to as well. So it makes a lot of sense of why we see Alzheimer's and related dementia. So let's start going through those theories just a little bit more those philosophies. The first one is the basic needs and again I don't think I need to tell you this. Think about your physiological needs hunger thirst bodily comfort those take your highest priority if you think about Maslow's Hierarchy, that's

on the base those are the most important. Then we have security that need to feel safe to know what's going on in the environment to know what's going to happen to know what the plans are. There's belonging and love. That's friendship sexual intimacy having a family being accepted, belonging. And when the person doesn't have those, what do they have they have loneliness social anxiety, depression. And then there's esteem. There's that need to be respected. There's that need to be recognized that need to be noticed. Not just, oh I'll get to you in a second. Or you asked that question 10 times I don't have time right now for that and you hear those types of responses. Think about how you fulfill these needs you know day to day and then think about how you would be if you couldn't do these types of things. And again, these things should not go away as I have Alzheimer's or related dementia but oftentimes they do, particularly in our institutions.

We talked about the care models addressing behaviors and something called the progressively lowered stress threshold. And this is basically again saying that adults are less able to manage stress as the disease progresses, so this is why you want to know that stage, early stage, no problem. Middle stage later stage, they maybe can't manage stress when we talk about stress. We're not talking about what we think of as stress oh gosh you know my productivity is low, I'm going to get yelled at, it's not that kind of stress. It's changes in routine change in caregiver change in the environment, a demand that exceeds their ability, asking them to do too many things at once. Firing too many instructions too quickly.

Multiple or competing stimuli. All of those type things or it even could be physiologic factors like discomfort or constipation or medication side effect. So, knowing that is gonna help you to frame your intervention if you know that they can't as they progress, manage all of that,, we're gonna give one step at a time we're going to allow them to process before we move on to the next step. And I love the what is it fourth bullet down here fourth or fifth whatever it is. Use anxiety as a gauge so you're gonna see

that person probably start to get a little antsy when there is too much stress, and you're not just going to listen for behaviors, you're gonna be watching for behaviors who change in their posture change in their facial expressions and that is your cue as a therapist to say, I need to change this because I'm not getting through and in fact all I'm doing is frustrating this person to the extent that they may have behaviors. Another care model that addresses those behaviors that need driven dementia compromised behavior model which is again a little bit old, I realized this from 1996 but still very very pertinent. It talks about background factors that we're not gonna change, health status demographics, et cetera. And then it talks about these proximal factors that talk about physiological needs psychological needs like contact with their family, environmental factors like maybe a cold room or having too many people in the room, we can control those, and again those are going to be more and more important as we progress through those stages of dementia.

So, I love this particular slide it's probably my favorite and it's our responses for stress, and again I could ask each of you to say what do you do for stress and you would give me 100 different answers you paint your garden you take a walk you work out you exercise you go shopping. You vent you, whatever. And those are kind of the things that we talk here, some of you may say you have sex and probably outside of the scope of this but that's possible you read a book you take a bath, you change your clothes, whatever. When you think about dementia types of behaviors. How different is wandering it coincides with typical things that we would do wandering similar to going for a walk. We talk on the phone we vent. They ask the same things over and over again. We put on comfortable clothing, they take off their clothing and some of that may be, again, that response to the sensory side of that person's progressing through the stages sensory is all the rage. They don't like to feel a piece of wool clothing on their bodies so they start to disrobe so we have to consider that We shop, they rummage we exercise they pace. We have sex they have inappropriate sexual behavior, and if you think about some of these behaviors. I don't want to say they're normal,

quote unquote, but they're not that atypical from what we would typically do as adults. When we look at these behaviors, again the behaviors factor heavily into the decision as to whether or not to place somebody into long term care. And, you know, a high percentage of people have behaviors, and they result really in truly from the interactions between that individual, the caregiver and the setting and I'm gonna keep saying not and I don't want to belittle this, but it's oftentimes not rocket science. We're gonna talk again on another slide. And just think about some of the typical things that we see and then we wonder why we have behaviors. When we look at behaviors Ahn and Horgas you know talk about this wandering anywhere between 40 and 60% of our residents aggression and agitation, 50 to 80% of individuals have those types of behaviors and they're disruptive let's be honest to that person and to those around them.

And what we talked about with behaviors is important all behavior has meaning all behavior is trying to tell us something it's a form of communication and again we as therapists, need to look at that as an unmet need. Individual refuses to get out of bed for nursing, well maybe there's a reason for that. The individual, you know, is behaving in a certain way every time somebody brings them and transfers them on to the toilet. Look, maybe there's a reason for that. And it's up to us and sometimes it's hard. You've got to go in there and just look at the whole situation, you know, and try to figure out what what is it and we're going to use the phrase, what is it that's making this person, tick, what's making them behave in this way.

Let's look at the environment, let's look at the instructions let's look at the person behaviors are only an issue if we can't figure out what the cause is or the trigger, or the safety or well being is compromised, that of themselves, or someone else and again that's your skill as a physical therapist, you come in and say oh well, here's the reason you did that you know you did the transfer this way and you should have done it this way or you did it in the busy day room and you should have done it in the patient's

room or something. And again, as basic as that sounds, that is skill. Don't underestimate that as skill because not everybody has that keen eye really to be able to drill it down to that and realize what's causing issue. And these are our common behaviors and I'm not going to go through all of these because trust me I could spend five hours talking about this. I'm gonna hit on resistance to ADL as just one particular behavior. And I'm sure you've experienced wherever you work the quote unquote shower day. And you know I would ask all of you, do you shower every day, probably, or do you take a bath or something like that. Do our residents get that same luxury? Oftentimes, no. You probably take a shower with scalding hot water and love every minute of it. Do our residents get that? No, you probably take a shower without somebody watching you, but yet this person has somebody watching them, even if they're reasonably independent there's still somebody outside the curtain kind of watching in on them to make sure that they're quote unquote safe.

Oftentimes you know they're on that shower chair, which is that PVC piping chair with their fanny hanging out the bottom but how demoralizing is that? And I could go on and on and on. And then we wonder why we have resistance to certain types of activities, it's oftentimes us causing the issue because of how we've given the instruction. I will tell you a story and this is a true story. I was working with a manager not all that long ago maybe a year or two ago, who was saying, you know this person and it was a physical therapist and she said she's just will not do what I need her to do I have to discharge her she's not safe and she won't follow through and then blah blah blah you know you've heard the story right. So we went in together. And I said let's try something this person was moderate bordering on late stage dementia. I said "Let's give her the instruction "of what you want her to do. "And then let's see what happens." So we gave her the instruction and we just kind of waited, while we maintained eye contact. We gave her all that positive encouragement that we could do, non verbally about 45 to 60 seconds later just waiting it out. This lady locked her brakes put her hands on her wheelchair armrests scooted forward stood up and

walked across the floor. Just what she was supposed to do. It was processing and here was that aha moment for that physical therapist to say wow it had nothing to do with the patient, but everything to do with how I was giving the instruction. That's why you need to know the stage of dementia. We've already kind of talked about, but there's a lot of reasons why we see behaviors, environmental medication communication task related et cetera and again, a lot of it comes directly from us. And as we're looking at these behaviors, you know, we need to go non pharmacological, we're looking at either to prevent the incidence of the behavior, respond to the episode to reduce the severity and the duration, or we're intervening to reduce caregiver distress.

Again that's your skill, you may not be intervening to help the patient per se, but instead to give the caregiver strategies so the caregiver can assist that patient. We again we want to go, non pharmacological. We've already kind of talked about this, I'm just going to breeze through this but this is addressing those behaviors. When we talk about what the serial trial intervention is, it's this, it's observing trying to figure out the cause looking for changes in routines, et cetera. Medications pains, pain, et cetera. When we look at behaviors, the reality is, staff, under estimate or under identify. We, the resident, the patient, their caregiver their family members tend to over identify sorry in between is reality. So what are you gonna do to intervene, what are your treatment strategies?

We're gonna go through these as it relates to different topics. The first is falls and this is so common. Unfortunately, the incidence for falls for individuals who have Alzheimer's is about 60% which is twice that of a normal elder without a cognitive impairment. When you look at what the evidence talks about. Obviously, you're gonna be getting involved in addressing balance and addressing gait and strength and all of those things. But for this to truly carry over it's been really interesting looking at some of the research. They talk about embedding it into what we call quote unquote

occupation based intervention and I don't use that language because I'm an OT, but because that's what they call it activity based. You probably seen this that person who comes to the gym like doesn't have a clue what we want from them when we're giving them a set of dumbbells or therabands and or pulleys or something or the new step machine, but they will totally understand what we want them to do if we say here, Do you mind helping me rake the leaves or sweep the floor or wash the windows, know that for this person with dementia, you know, using activity is going to be super meaningful to them and that is what's gonna carry over a lot of those skills, you can work on strength and balance and all of that stuff through something that is activity based.

And if your OTs tell you otherwise, that's not the case because that is the hallmark of what we see in Montessori and in some of our best clinics, is really having that type of intervention. We would love to have close supervision and participation and activity based intervention again this is where you train your nursing staff, Hey, I found that if you do X, Y, and Z. This will carry over, let me teach you on how to do that, particularly again at the middle and late stage. If you have a wander garden, give them unrestricted access to that, modifying the environment.

If you want a modifying the environment that's fabulous but you can't just do that independent of everything else, you have to have other things, exercise and balance staff directed types of things. Evidence for music as it relates, falls is pretty limited strong evidence for wander gardens particularly at home are really good. In the clinic not nearly as much I tell a funny story and this is true I was teaching live in Florida, this was years ago. And it was a coded door to the outside, and I was trying to leave to go back to my hotel. And I didn't know the code and this, this woman came up, she actually was on the dementia unit which is pretty hilarious and said, "Oh I know the code honey here I'll let you out." And she let me out So imagine how strong the wander gardens are. This next two slides slides, it's actually something I put together it's a

dementia specific fall risk factor assessment and I kind of like this, that if you're looking at falls I didn't know y'all are getting these referrals and we go in and we immediately think strength, balance range of motion, what have you. Maybe it's something else. This is where you can start to look at well is it a problem with their eyeglasses, is it you know something with protective reflexes is there rigidity, start to really break it down into the why behind the falls. Reduce walking speed are they unsteady are they using furniture what's their postural sway et cetera et cetera so that you can maybe drill it down to some very specific and then that's going to guide your intervention, not just you know ambulating 150 feet with a wheel walker you are really working on a gait discrepancy some sort of gait deficiency and relates to the shuffling or step line or stride length or base of support or whatever that happens to be. So some basic things that you would do, and again I say basic but not so basic agitation, again, somebody is agitated, think about it when you are angry you're upset you're frustrated.

The last thing you want is someone in your face telling you to calm down, right. Oftentimes you just wanna be left alone. This person is no different. Don't you know tell them what you want them to do be simple be firm, don't try to reason, don't try to fix it, necessarily. If you can walk away and allow them to deescalate let that happen. Get out of their personal space, get out of their face. Don't if they want to wander, if they want to walk away. Go with them, reassure them, and be there for them. And sometimes the last thing that you need to do is continue to talk to them just be quiet. Oftentimes, that, that seems to work and again I think about what I need when I'm frustrated, when I'm angry again it's no different in this population. Some wandering strategies and you've probably heard some of these before illusions and visual cliffing are about the same thing and again these are not going to work for all people. The evidence is mixed on who this works for who this doesn't work for but I throw it out there again. I want to have a bag of tricks. I don't want to just rely on one specific type of intervention. So, again, that person at those later stages of the disease process they are visual changes they don't have the depth perception they don't have the color

contrast that they used to have, so they can see a change in the texture of the flooring or the color of the flooring as a change in elevation, that could be good, you could use that as a deterrent so the person doesn't go through a doorway or something, but it could also be bad, it could lead to falls and again that's where you're in and say, Well, I know that the later stage this what I can expect let's modify that environment. When we talk about deterrence, that's another one or the typical one is that stop sign and does it work? No, why because you know go back to procedural memory what we talked about earlier, you go to a stop sign, what do you do, you stop, you look both ways, and then you go and that's exactly what our patients do.

So when we look at those later stages of dementia or even in middle stage something visual, somebody, you know, holding up a hand that says do not enter or out of order, or the big red circle with the white line or use other door, or something like that. Looking at the message is what we're doing there too camouflaging, making it look like it's something else like a, you know, a bookcase or, a mirror or something like that. I use that one just with a caveat, just be sure where your state survey guidelines allow you to do that. And then of course diversions. I can't speak highly enough about activity activity activity something that's meaningful. Something that's purposeful and all of us can really address that.

Because the more we do that, the more that person is engaged if they're wandering they're looking for something, generally speaking, so we will keep them engaged. Now let's look at pain in the elderly, so there's a lot of different studies here, and you see them all kind of quoted there, evidence indicates that anywhere between 60 and 80 and I know the slide says 50 but it's actually 60 to 80% of people with dementia regularly experience pain. Most commonly related to musculoskeletal issues. Gastrointestinal cardiac genital urinary, and even pressure ulcers. We also see that pain correlates to aggression, and agitation skills they are highly correlated. And unfortunately the vast majority of people who were in pain about 40% who were in pain

were never given analgesics particularly patients with dementia. And of course, you all know the reason why, those analgesics are ordered PRN And did the patient ask for the medication? I don't know, let's go back a few slides ago where we said behavior is a form of communication. And we have to be savvy at figuring out is that person communicating, non verbally, their pain because remember as we progress through those stages we're not gonna be verbal we're gonna be more nonverbal. When we look at pain again not to get into the nitty gritty details but there's two areas of the brain where pain is processed. The first is the thalamus which processes that motivational effective perception of pain and that area of the brain is affected dementia. Then there's the sensory discriminatory pain perception which is in those sensory areas of the brain, which are well preserved during dementia. So what does that mean well the person is feeling that pain, because their sensory section of the brain is still intact. But they can't link it together they can't put the pain in context, the location, the timing et cetera. Because the thalamus is breaking down. And that's why we will look atypical types of behavioral responses.

So what do you do? Again this is where you as a PT I think absolutely shine, PT/PTA I use those interchangeably make sure that the comfort needs are met you know this person is exhibiting pain, it doesn't mean that you have to go in and do yeast test or ultrasound. Let's just make sure that hunger, thirst temperature constipation, you know, let's look at those kinds of things along with nursing. Look for treatable conditions, visual inspection maybe there's a bruise maybe there's swelling maybe there's something that we can do related to that, look for other sources of the behavior which we've been talking about. Look for non drug comfort strategies even something like a warm blanket right out of the dryer or a warm towel draped over that person that neutral warmth, kind of feeling sometimes will help, then maybe begin an analgesic trial, and again this this should not be avoided, because it can certainly help those individual. as a side note I just wanna make a comment and you may or may not be aware of this. Come October in this year 2020, the MDS in long term care is going to

be changing Section J specifically to look at not just pain in our individuals, but how does pain impact activity? How does pain impact therapy, so I think we're going to probably see more and more referrals related to that. This is what I just talked about and I do believe that I had the pain add in here too somebody's not gonna necessarily say I'm in pain or my neck hurts or my back hurts, but as we progress in those stages of dementia, they're going to do all these other things, facial expressions they're gonna moan they're going to groan, you're gonna see them tense or rigid or fidgeting, you're gonna see them aggressive or combative or be confused they refuse food, et cetera so again this is us assessing this, this is us teaching nursing to assess the same things and then to have the interventions to go along with them.

I love this next tool. It is the pain and the pain assessment in advanced dementia scale available to you in the public domain and you probably can't see it on the screen but it talks about advanced dementia. So, what is their breathing, and what their vocalization, what is their body language and this is again one of those tools that you can teach to nursing for those later stages. If they score this they are very likely in pain and here's what we can possibly do about that. I don't know if I talk about it here but it's not inappropriate to use a modality with somebody who has dementia, who has pain. You can certainly do that.

What I generally say to people is if you feel like they can reliably then communicate, while that modality is on them some sort of discomfort that I think you would be fine in using that. If you don't feel like they're reliable in that or it might be an issue I would maybe shy away from it, I always err on the side of caution, but I wanna make sure that we protect that person, their skin, et cetera. So there's a lot of barriers to pain management, again, I think, where you can get involved. Poor and absent communication we've already just talked about that behavior is a form of communication and those behaviors are telling you that they are in pain. Oftentimes nurses and let's be honest, the physician don't know what to do. They have the

behaviors so instead of doing something non pharmacologic we instead throw a psychotropic to deal with the behavior. Instead of getting to the root cause of when I see the behavior which again for you as a PT can certainly get involved. If it is pain if it is musculoskeletal or what have you, that's where your treatment comes in. There's that knowledge for assessment which we just talked about and then that reluctance to change the meds there is nothing wrong in the state's eyes in the community's eyes to have some sort of standing order for some low grade pain medication I'm not talking you know not a narcotic per se, a Tylenol or something that could help this person who was exhibiting those types of behaviors, not related to anything else. And this is again where we talk about the modalities TENS oftentimes used for pain control. However, TENS can also be used for a lot of other things.

When we looked at these particular studies that were replicated. The TENS was applied 30 minutes a day five times a week. And it actually helped these individuals with sleep disturbances with behavioral symptoms and what was really cool about this study is that they improved immediately thereafter and even six weeks after, they continue to show improvement. So, this is again a case with modalities can certainly help. So let's switch gears and talk a little bit about communication. A lot of factors that are gonna affect communication again these will be intensified as the stages progress, you know factors in the environment distractions unfamiliar surroundings noise lighting.

The time of day, a TV conversations again the gym is maybe not our best place to work with an individual, because there is so much other stuff going on. It could be medications and again, as the dementia progresses, they may not be able to interpret the communication and that's where you jump in and say okay it's not verbal, it's going to be visual it's going to be gestural it's going to be cueing. We see issues with word finding difficulty again becomes a lot more difficult as that dementia progresses. So much so that the inability to find the right word, could trigger behavior so you might

see behaviors related to communication repetition, again, we see that and that in and of itself is communication. Again, remember that that person as they progress, they may not be able to read or understand written language verbally, they may not be able to understand full sentences we may come down to word or phrase level. A lot of individuals if English is a second language for them will come back to a native language. And we need to recognize that that's kind of the case I don't remember where I was. And there was an individual in the community who was of Russian descent. And it was interesting whatever her name was, I don't remember off the top of my head, but they put her name on her door and we do that a lot of times as a way of wayfinding to find our way back to our room or back to the dining room or something. And this individual didn't recognize that as her name because in the English language it looked very very different than how it would be written in Russian and when they finally wrote these things in Russian it made a lot more sense to her, and we saw less wandering behavior and again that sounds so easy, so basic, so intuitive, but it isn't always sometimes, it really does take a community figure that out. So what can you do?

Again, I'm not going to hit on all of these I think some of these are pretty intuitive, but obviously don't argue, don't reason, you probably won't get too far. But ask closed ended questions, you know, hey, would you, you know, what do you want to do in therapy today this is not something you know that that person may be able to answer instead say, would you like to focus on walking today or would you really rather, you know, work on your transfers today, give them we call that a forced choice of two, giving them two options, or asking yes/no questions, giving them the time to respond and I will tell you this one thing that we just don't do well in our industry in our workplaces we know it, not nursing, us, all of us, we ask a question and we really do require we expect and immediate response and we don't have that we really need to slow it down for these individuals as I say as I'm talking a mile a minute at you right. 90% of all behaviors can be eliminated by our approach. Communication skills are

gonna change. Not just as dementia progresses, but it can also happen throughout the day that person is so wonderful in the morning and not so wonderful in the afternoon with their communication, that's very common, know that you're going to have to grade the conversation, as you continue and again we're talking communication you might be thinking, oh that's speech language, but it's not, you're still giving this person instruction on your physical therapy program and you need to know, quote unquote, how to get through. And you need to be an active listener and that's not just about what's communicated to you verbally, but listen for their nonverbals, there is nothing that's going to tell you more than what their face says, as to what they're thinking, and how they are reacting to what you're saying.

Make sure that you get eye contact you get their attention and that makes sense. Particularly with that person who's a little bit distracted use touch, but also don't encroach on their space that's where you really need to know who the person is. Use history to guide treatment, I do like this and again I go back to functional meaningful purposeful. The less that we can use contrived types of activities with this population, the better off we're gonna be, because it's going to be something that will trigger in their procedural memory. Oh yeah, I know how to rake the leaves. You know, use a screwdriver to do such and such I know how whatever it happens to be.

That's what's going to help you to get your strengthening program accomplished or your walking program or whatever it is that you're trying to do. What's their history? What are their strengths, what are their limitations, what are they like to do what's their background, what are their experiences? And really, utilize that. And this is, again, I say this is where therapy shines because we have time to really sit there and connect or work with this person and connect with them to find out everything that we need to know and develop a treatment plan around it. Again you're still gonna focus on gait and strength and balance and all those things but if you're going to use their history to guide it. When we look at what you're doing for intervention, it really hits in these five

different areas. Promotion, optimal performance in activities and caregiver wellness. So again, working with your caregivers which by the way is skilled, you are teaching a caregiver how very specifically how to address this person or behaviors or whatever it happens to be. And again, that is a skilled intervention. Modification, this is huge, the demands of an activity so the type of objects, the sequence, the amount of time, the physical environment so it's the lighting it's the temperature it's the noise it's the clutter. The social environment or expectations of caregivers safety in the environment, this is a big piece of what you're gonna be doing, particularly at the middle stage of dementia and then ongoing into that later stage. Remediation this is what we do as therapists right we improve musculoskeletal movement functions. Maintenance so maintaining their performance as long as possible.

By focusing on familiar routines and providing external supports and you've heard me use that term routine. Again, it's going to be your skilled intervention to say back to a caregiver okay if you set up the transfer in this specific way following these five steps in order. The person will be functional they'll be able to do it for you so it's teaching that routine so that everybody does it exactly the same way to then promote carryover and performance. And then of course prevention any barriers to make sure that they're safe and that they're performing.

When you look at activity requirements I'm using activity to mean any intervention that you're going to do this is not just you know the activities department. It needs to look at all of these things. Gross motor, repetitive familiar, or tapping into, as we've talked about that procedural memory. It also needs to have an observable effect on the environment. What we mean by that is, I'll go to the next slide. The purpose needs to be obvious to the participant. So you're doing some sort of strengthening exercise and you're using Therabands, or whatever you're using the back of your mind you're thinking, Okay, if I do this with this person, this is gonna improve their strength which is gonna improve their ability to, you know, do single limb support, when we're doing gait

and blah blah blah. The patient isn't thinking that they need to see that what they're doing makes sense, and that's why you know a lot of times, it is very functionally based. Pleasurable, voluntary socially age appropriate and failure proof they need to see the outcome and it needs to be successful. And again, this is where I would strongly urge you to work together with your colleagues. Speech OT nursing activity, social work whoever it is that you have available to you to figure out what does this person like to do I mean if a person loved fishing. I'm gonna give you a great story because this just came up a couple months ago. In a community that I was visiting and there was a gentleman who did have dementia, and he would not participate in physical therapy. Would not but he was a quote unquote frequent faller and all this other stuff, found out that he was an avid fisherman.

PT worked with him directly with his rod, they took the hook off and such but in standing to cast his rod. Holy cow, what a lot of balance they were working on in that particular activity, took him arranged a situation to the facility where he was able to get out and actually go fishing. There was his gait on uneven terrain that he was working on. There was his wow, dynamic balance and even static balance, you know, and all those strategies his hip and his ankle and all his strategies, on uneven terrain took him fishing brought him back to the community where then OT kind of picked up and help this guy to clean the fish cook the fish share with his friends. This is a guy who comes to therapy now.

So there's an example, a real example that I just experienced at a community where you pull it all together and it makes sense and again. I don't know that that's possible everywhere we work, but that's kind of where we want to be thinking. Now one of the handouts that you have which is gonna go into these in great detail is called adapting activities. And I'm gonna go through them in a couple of areas, which I think are important and then you have the whole handout to reference back to. If we break down each of these areas, early middle late stage dementia what's happening. Attention

span early, that person can participate about 20 minutes, they require one or two verbal cues to contain their attention. Middle stage, that's decreased, anywhere between five and 20 minutes and they still need some intermittent verbal cues by the time we get into late stage dementia they need constant cues or the person cannot attend at all. When we look at environmental scanning early stage dementia about 24 inches in front of their visual field, middle stage about 14 inches late stage less than 14 inches sometimes six or seven inches so again if we're thinking about a gait program and we're walking with this person and we say, "Hey, watch out for xyz architectural barrier" we wouldn't use that language obviously but hey watch out this is coming up on your left, make sure you don't bump into it. If we're moderate stage dementia or moving into another stage.

They may not see that because it's too far outside of the visual field. I'm gonna jump all the way to the end now in direction following early stage, simple verbal directions, middle stage one step verbal no written, late stage, they need hand over hand, assist to do that. And then we wonder why they can't lock the brakes and put their hands and stand up, and do all the safety things that we expect them to do. And then finally the response time, this is what I already alluded too. It's slower than usual early on, and then by the time we get to the middle stage we're looking at 15 to 20 seconds. We get to that later age we're looking at significantly longer 45, 60, three minutes later, a long time after.

And again, that's a lot of time I totally understand. But that's what's gonna keep that person functional and mobile and participating is to know that and set up situations where they can do that. Now when we think again about activities by stage early stage can look at the whole task. So, you know, if it's a transfer, they can look at the whole task from start to finish surface to surface. If it's more if you truly are taking some sort of activity based type of thing. You know it's baking the whole cake it's potting the bulbs for spring it's gardening it's the whole task. When we look at the middle stage,

we're looking at the individual steps, just focusing on locking the brakes just focusing on putting our hands where they need to be just focusing on that anterior pelvic as opposed to a posterior or whatever it is it's actually filling the flower pot with the compost it's actually just pushing those bulbs down into the compost and again and I use that one because that's a really good activity for standing balance and mobility and some gross motor types of things. Late stages of dementia sensory, it's all sensory and again this is where we'll talk about the stages in just a minute again, excuse me. But this is where you're probably not going to get that person from a max assist to a min assist, this is where you're going to be focusing on nursing intervention to help that person and setting up experiences where that person can still be part of an activity or part of an experience, maybe not doing the whole thing but it's just focusing on what something feels like what something looks like or something sounds like. And this is how you determine if you're successful, you know figure out where they are, what's their stage.

What's their cognition, what are their spared skills, what can they still do, because we're not able to remediate everything but let's figure out what they can do and let's incorporate that into something that matches their abilities and then determine whether or not you did a good job and if you did a good job continue doing that teach nursing, if you didn't do a job, go back to the drawing board. Now some general treatment approaches and we're going to talk about some skilled interventions we already just said this determining the strengths the weakness what I call the spared skills that that person has. They have great strength, but they have poor balance. They have great mobility but they have poor comprehension. Focus on what they do ver well, and incorporate that, providing choices of activities to stimulate those spared skills, we said and that will also result in decrease of behaviors. Structuring the treatment session with very simple repetitive activities as individuals with dementia to perform familiar repetitive activities a little bit more easily and again at those earlier stages potentially can learn from it. Establishing functional maintenance programs, again I use that

terminology what that essentially means I don't know what you're doing in your communities but teaching nursing how to carry over what you know that person can do. So teaching nursing that, and that will help with caregiver burden, obviously, figuring out external memory aids and again that's not a speech thing, that's an everybody thing. You may find that oh gosh this person tends to forget their walker across the room. What can I do to help them remember? Well maybe it's just a simple sign that says, make sure you have your walker. There's something in the bathroom where they keep falling because they don't, you know, push up or they don't lock the brakes or something like that, maybe it's a cue or signage or a picture something like that in different combinations.

And then determining your cueing we've already kinda said this but tactile visual visual graphic auditory and the list goes on. Some of your skill interventions, also talk about those as it relates to gait. Looking at the cognitive and the physical abilities to use an assistive device, and again, early stage, no problem, middle to late stage, I'm not so sure they may not be able to learn to use a new device because they're too far along so again that's where you're gonna step in and adapt the environment or teach nursing how to do something or the caregiver figure out is it a new device can they learn, are they re-learning is that the least restricted, and I'll tell you a story. My father in law who since passed away I remember him being in therapy in his community, and he had Parkinson's dementia by the way. And the PT was desperately trying to get him to use a walker And he just couldn't do it, he just couldn't sequence the whole concept of this will be a little too far along he was actually unsafe with the walker, they took the walker away and he was safer just using handrails. So, I'm not saying that that's gonna work for every person, but that's where you need to assess, you know, is it my need to use this assistive device or is it the patients need and can they possibly be safe with some other types of intervention. Also visual and proprioceptive tactile types of cues, demonstrating the task while you're giving a capital cue and what about the somewhere else but demonstration is so powerful so giving a sample showing that

person what what do you mean maybe not even explaining using words but show show show. Tell show do that demonstration is perfect tactile cues maybe their trunk their hips their lower extremities whatever they're not gonna necessarily understand okay do this. With your foot, but if you can put a hand on them to show them what it feels like remember sensory as we get to those later stages they might carry that over. Providing a safe environment. So again this is very adaptive in nature, proper footwear adapting the lighting or adding nightlights getting rid of environmental hazards, rearranging the room maybe to facilitate mobility.

Maybe it's giving assistive devices or durable equipment for safety maybe it's in the bathroom or something like that. Visual cues maybe it's red feet, or red arrows that show them the way from the bedroom to the bathroom, or from room to room, again, the sky is the limit. This is where you can kind of creative. Bed mobility and transfers it could be environmental modification that you're doing so maybe it's visual cues. Again we just said, equipment, rearranging the room for safe mobility and again that is that is a skilled intervention having color contrast may be between the bed and the walls the patient knows exactly where the bed is so they can actually get into it. Using appropriate equipment during the transfer and then training staff to do the same.

Adapting the environment, again maybe it's the height of the bed the type of the mattress removing chairs with lower surfaces building those up, whatever that happens to be for safety. Maintaining assistive devices properly and teaching others to do the same. For balance we talked about some of these strategies already the ankle the hip, stepping what have you and those are things you do as PTs every single day. But again, you're not gonna teach that per se, because I'm not sure, very successful with it, but you can certainly facilitate that through some sort of activity that you set up for the patient. You may be doing progressive therapeutic tasks to facilitate balance reactions or postural strategies, providing the visual or the proprioceptive or the tactile cues during the task, show them, let them feel what it is that you want them to do. And as I

already said demonstrating the task. Figuring out, education, we've talked about this the whole way through. Communicating back to the facility thing to nursing staff balance level, how to use an assistive device, what are the strategies for safe transfers, what are the strategies for safe gait? What are the proper techniques to help this person get up from a fall, what are their fall risks intrinsic, extrinsic, how have you adapted the environment or accommodated for this patient for those things. And then of course general safety. Things to keep in mind very PT specific early stage. They're gonna tend to forget where they put objects for example their walker or their assistive device. We've talked about routine.

They have a heavy heavy reliance on routine. This is why people with that early stage are still living in the community, because they have a set routine and can continue along with that, without anybody even recognizing that there are deficits so consistently, the same techniques same verbal cues not just us in therapy, but everybody. And then for concentration so eliminate or limiting those distractions in the environment. When we get to the middle stage, we're gonna see a deterioration of judgment, so we might see increased risk for falls.

Again, that's something that we'll need to address wandering behavior we've talked about that so you factor that in as you are developing your mobility programs, and then too you're gonna see impaired learning, we've already said this assistive devices are gonna require compensation training and that's where you even consider, do I even want to introduce this adaptive equipment does it make sense is it going to be more harm than it is good and I don't know the answer to that, that's very patient specific. And then finally late stage the person's gonna be unaware of their surroundings again fall risk is going to be increased, the person, is gonna be non-ambulatory without assistance and this is again where you teach staff those regular and routine mobility programs, it's not in my mind, take it for what it's worth, I don't think that it's enough to say okay we're going to walk with restorative twice a day. Imagine if that where you,

you want to be up and mobile and that's something we need to teach staff to do. Obviously they're not gonna be able to learn new tasks necessarily and they're required to adapt to the environment for successful performance so again this is probably not the person we're gonna get back to min assist. So what are you doing, early stage mobility assistive devices new equipment safety precautions pacing sequencing again all of that is going to make perfect sense because this person is at the earlier stages, once you jump into that middle stage, that's where we walk with supervision, you allow more time to perform the task two to three times longer than what would be, you know, for another individual who doesn't have dementia. Repetitive sequencing repetitive training consistent routine.

You hear some obviously repetitive, you know comments here. We're following the theme consistency. Demonstration visual cues verbal cues, grab bars safety. Removing distractions again adapting that environment so it is very very safe for them. And then as you get to the later stage, fall prevention strategies maybe it's a schedule of ambulation, you know how often they're up in the chair how often they're sitting somewhere else. Maybe we look at different seating surfaces and how that might work for that person. We talked about color contrast. And again, using their strengths and abilities.

So maybe they can't do a full transfer on their own but maybe they can do part of it and I think that's a big piece too where we can be advocates for our patients, they may not be able to do their entire program. But if they can come participate in even one small aspect of it. That's still giving them the dignity and the quality of life that they deserve. So, I wanna take a couple of minutes before we wrap up here to talk about documentation. And I want to start with something called the advocacy model of care and you may have heard this before, there are three levels restoration, compensation or something called adaptation or maintenance, and a lot of my comments have focused on these three areas. When you think about restoration. I say to ppl this is what we as

therapists were born to do this is you know getting that person from max assist to min assist from 10 feet to 150 feet whatever it happens to be we are restoring their function we're going from three plus strength five, whatever it is, is that the person with dementia? Probably not because it is a degenerative disease. Will we compensate, you betcha, we may get never them to that prior level you know what maybe we can use maybe assistive devices we can use a different technique or a strategy, to get there. Will we get to a situation where we can't even get them to compensate? Where we cannot see function.

Yeah, and that's when you step in and your interventions are still directed towards the patient, don't misunderstand me but you're doing it through nursing you're teaching nursing how to help this person to be functional how to give them instructions so that they understand, how to give them steps as they can actually sequence. And this is gonna be based on the unique needs of the individual Padilla did some research back in just a few years ago about five years ago, and talked about and this is very very individualized there is no one size fits all. And caregiver training is essential to maintaining those skills and the age old question is you know I've trained nursing over and over and over and over again and they just don't follow through, what do I do?

Well, you know, that's when you're gonna need to probably get back in there and see if the training that you put together and that the strategies you put together, are they still appropriate for that patient, which is a nice segue into Medicare requirements. You know Medicare doesn't say specifically oh you can only treat the person, this number of times or this many, you know, whatever. Everything is based on what the documentation states and what the patient's needs are. So documentation is important so when we look at diagnosis We're looking for, you know, what does it say in the documentation that's gonna support you intervening obviously this is a dementia diagnosis. So that's when we're going to want to look at all these other pieces. What was their prior level of function? And this is where you focus really on function and

safety so maybe, you know, the person was referred because they used to be able to sit up for four hours, without any safety issues, three months ago, and now they've fallen out of the wheelchair twice in the last month and they're at risk for further falls. That's a good prior level of function and that really gives you a good rationale why you need to get involved. The medical necessity what I say to folks is in your documentation, you need to say, what would happen if treatment didn't occur? If treatment didn't occur with this person what would the risk be where would they be? And then what is the skill service. We'll talk about this on the next couple slides.

This is what you are doing, that is a skilled it's not practice it's not repetition, again we have good nursing for that. You have true skilled interventions, and then nursing does need to support you, for the reason they were referred to you in the first place, and then we also want to be carryover as you start to do things in therapy, you want to see that carried over on the nursing unit, if you find that a specific cueing strategy is working, you will see that same thing happen on the nursing unit. So what are you doing, these are your skilled interventions, activity analysis, you're breaking down that transfer into its component parts to say the patient can do these pieces, but not that piece.

Task segmentation, you're breaking down and having them do it one component at a time until they can master it. We've talked about environmental adaptation, compensation to creased vision, again we have that downward restricted gaze so maybe the signage or the cues that we give to that person, are on the floor, not on the wall. That's a compensatory type of technique. Cueing hierarchy we've talked about, analysis of resident response that's a fancy way of saying, hey I gave the cue and this is what the person did and hey by the way it worked. I want you to carry over the same. Analysis of ability to generalize, that's really important just because you can use that particular cue when you're doing your bed mobility doesn't necessarily mean that you're going to carry over that cue when you're doing the transfer, you know in and out

of the car when you're going home to visit family We have to make sure that we do that site by site. Functional maintenance or restorative of whatever your community calls it obviously the type of cueing active and assistive equipment and education I think we've hit on all of these but again those are your skilled interventions. When you look at your goals you're strongly encouraged, and this is what I've seen on Medicare reviews, so take it for what it's worth, you want your goals to be better resident or patient centered or caregiver centered, not that the therapist will assess or the therapist will complete that the resident will you know ambulate 50 feet with a walker, whatever it is, or patient will walk 50 feet to the bathroom blah blah blah, as assisted by a trained caregiver so it can be caregiver centered. Avoid non-skilled words like tolerate participate practice.

Maintain is in there, I use that one with a caution if you are, you know, developing a skilled maintenance program which oftentimes we are, you might utilize that phrase in a goal but typically we would probably shy away from that. Remember, even though this person has dementia, it's still functional measurable objective and it's very very much appropriate to the patient is. So here's some examples and I'm not going to read these at you.

You know they'll utilize safety a handrail 25% of the time with with certain type of cues, they're gonna use the bedrails with max assist in order for staff to complete hygiene, whatever that happens to be. Okay, so the very last section we're going to talk about are interdisciplinary techniques, and I saved this for the end it's everything that we've talked about in a nutshell in a quick wrap up. So we save this literally for a last like two or three minutes, and I will tell you that you have an inservice as one of your downloads that talks about a lot of these techniques that communication strategies that we've talked about. And a lot of these different things so that if you're going back and I want to share with other caregivers. I say nursing but again it could be somebody in home care it could be a family member whatever that's available to you. So all the things that

we've talked about simple routine, we do need to be concrete not abstract because again as that person gets out of that early stage and goes into that middle stage, they're not going to understand the abstract consistent predictable routine that is so, so important because if they are off that routine, or if it changes it goes all the way back to their hierarchy of needs. They need to know what's happening next they need to know, what's going on in the environment. And when they don't, or there's a change or it's not been communicated. We can potentially see behaviors. We've talked about this task segmentation simplifying commands hand over hand if they don't understand how to do something, particularly in those later stages where it's all sensory, we give them the feeling of that movement what we want them to do. Familiar area, again if you want the person, I use this example with OT all the time. You want the person to get dressed, why are you doing that in the clinic do that in their bedroom. You know, do stuff where it makes sense to them walking around their room to and from the bathroom to and from the dining room.

Keep it simple, be flexible. Keep calm use meaningful activity et cetera. And I'm a firm believer, of really and truly being flexible, because, again, it's just because I say this is the activity that we're doing in a therapy today doesn't mean that that's what we have to do. Switch it up do what the person wants to do. Do it in a different location and do it in some way that you know is going to be more than meaningful to them. Maybe you don't participate with them maybe some other therapist does. You know I use the example with shower day. Why does it have to be Thursday mornings, why can't we do it you know Wednesday night or Saturday afternoon, be flexible I'm a firm believer this is their home, their schedule their routine, their everything. We are just partners in it. And we have to follow their lead and be flexible about that. It's not our way it's their way. One step commands praising, encouraging, facial expressions go a long way there gestures and then that really positive open look on your face smiling as you're talking to them. I don't know if you can tell I've been smiling the vast majority of the time I've been speaking, hopefully you got in my voice in my inflection in my tone and

you want to same thing with your patients because that's what they're going to respond to. Demonstration we've talked about all these things offer choices. Perform activities with them not for them. I know nursing has a tendnancy to do for instead of allow for participation. Label objects again, people may not remember that this is their handbrake this is their cane, they need to spell it out. Tell them what it is, and/or label it. Talks about cues, I don't need to go over this, maybe it's pictures, maybe it's verbal, maybe it's something else, use all of your different types of cueing strategies not just verbal hand signals redirection auditory stimuli and that list can go on and on we talked about that. So I think I want to wrap it up on one slide, here it is, acknowledge abilities. Even though I may lose so much with Alzheimer's or related dementia, I still keep so much. There's a lot of procedural things that I can do a lot of sensory information that's coming through so you definitely want to tap into that. We've talked about familiar activities that's what's gonna be very successful not something that is contrived. Get their attention allow for ample processing time and I think, you know, decrease those distraction and if I could give you one piece of advice slow it down, take it back a step really slow it down for this level of client, because that's what's going to make all the difference for them to interact with you. So with that I think my final slide is a thank you slide. Thank you very very much for participating. I know that we went right up to our two hours but I'm gonna to turn it back over to our moderators at this point.

- [Calista] Hello everyone if you do have a question, for Kathleen go ahead and place that question in the question answer pod before we close out today.

- [Kathleen] And I will say too if there are questions even after the fact or you wanted resources or anything, you know, you should have my email address and do not hesitate to email me, contact me. I'm always happy to provide information.

- [Calista] All right, well I don't see any questions a few comments here, just thank you. All right well we're gonna go ahead and close out today's course. We got some great

comments coming in.. Thank you everyone for attending. And hope to see you back in the classroom real soon Thank you, especially again to Kathleen for presenting what was a wonderful course for us today. And please check out her other ones on [physicaltherapy.com](http://physicaltherapy.com) as well. Have a great day everyone.

- [Kathleen] Thank you for having me, take care.