A Montessori-Based Approach for Aging and Dementia
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- [Fawn] Today's course is A Montessori-Based Approach for Aging and Dementia. Our presenter is Dr. Kathleen Weissberg. In her 25 plus years of practice, she has worked in long-term care as a researcher and educator and has established various programs in nursing facilities including palliative care, adult sexuality, falls management, dementia care and staging. She provides continuing education support to 6,000 therapists nationwide as Director of Education for Select Rehabilitation. She's a Montessori-certified, a certified dementia practitioner, and has lectured nationally at the state level and authored publications on dementia quality care and low vision. Welcome back Dr. Weissberg, we are so happy to have you as always.

- [Kathleen] Thank you so much, and thank you for everyone who is tuning in for today's session, and I love this session, it is, I think it's just uniquely OT. Everything that we're gonna talk about really taps into what we as OT practitioners are very likely already doing with our residents, our patients. So let's go ahead and jump in and talk about our learning outcomes first. By the end of the session, you should be able to identify the fundamental principles of a Montessori-based approach to dementia programming. List individualize activities that you can implement with individuals with dementia and/or teach others to implement to reduce unwanted behaviors and improve engagement. And finally, describe ways to modify the physical environment and really activity environment more than anything to support individuals with dementia. So I want to start off with this picture and a quote from Maria Montessori because I think this is really meaningful. "What you do for me, you take from me." That's something that she said a long time ago as she was talking about her students, but I think is really pertinent for all of us as it relates to quality dementia care. The more that we do for the person, the more we take away from them. We create dependence, we create isolation, we create depression, et cetera, all by doing for that person. The more that we can allow them to do and I think more importantly maybe not even as OTs, that we train and coach others, family members, other caregivers, activities staff,

nursing staff to allow that person to do, to give them that freedom to do, I think the better off that we'll all be and I think we would probably all agree with that.

So let's go back and just review some basics about dementia. Researchers predict that an estimated 7.1 million American citizens over the age of 65 will be diagnosed with Alzheimer's disease by 2025, and that is a 39% increase from the current number that is sitting in about five million, 5.1 million. Now in response to that growth, health care programs have really started to re-evaluate the efficiency of their services, the effectiveness of their services, the quality of care that they're providing to older adults with dementia, and in doing so, what they're seeing, there are clear gaps in the literature and we'll talk about some of this as we go along but most notably, the majority of the research that you look at as it relates to dementia quality care is with individuals who have beginning stages of dementia or maybe the middle stages of dementia. And while those individuals experience problematic symptoms for sure, there's very minimal research that has really focused specifically on the care of those with late-stage dementia, and that's where the Montessori approach really comes into play and can be very, very helpful, it's for those late stages of the disease process. And again, when we look at our, and I don't know where everybody works, I assume you're in some facet of gerontology, but if you look at the marketing brochures whatever it is that you work, you'll see phrases like, "Helping persons reach their optimal level of fulfillment, "enriching the lives of our residents, "promoting the well-being of older adults." We see that in the mission statements, we see that in the program goals, the program descriptions, the marketing materials, but I would challenge each of these communities and a lot of them do a very, very good job, don't misunderstand me, but what does that mean to them and how are they doing that, how are they achieving that?

When you go into a Montessori-based program, a Montessori community, you can see exactly how they're doing that. As we know, there are barriers to dementia care, but

honestly, the single greatest barrier to the provision of high-quality care is not lack of resources, it's not lack of time or whatever, it's a belief, and it goes by a lot of different names, but Cameron Camp quoted it as, or called it therapeutic nihilism, you may have heard that. What that means, it's the belief that because people have dementia, they can't learn new things, they're incapable of anything but declining, and the best that a caregiver can possibly do is just be patient, deliver palliative care as this deterioration of dementia unfolds. So care for them, take them to the bathroom, give them their meals, but past that, just allow the deterioration to happen. And it is learned helplessness if you will on a system-wide scale, and it results in large part because if you look at healthcare, we overemphasize the deficits related to dementia driven primarily by an emphasis on the diagnosis and the treatment of those deficits to the exclusion of acknowledging and utilizing strengths and available abilities, they're spared skills if you will that that person may still have, and again, that's where Montessori will tap in and utilize that.

So let's talk about Maria Montessori and the Montessori approach. You're probably very familiar with this as it relates to children. Maria Montessori was an Italian educator in the early 1900s and she became very concerned about a group of underprivileged children who were labeled quote unquote "unteachable", and she believed that education was a means of improving quality of life, and she was convinced that these children could learn if they were shown a different way to experience their environment, and that's exactly what she did. She developed this program and it was originally designed to teach young children cognitive and social skills, but it really encompasses individualized instruction designed to enhance practical life skills and sensory types of experiences, and these Montessori practices have been done very effective for children. They simplify the task, they provide immediate feedback, promote individualized supervised learning, and they're very effective, if you've ever been in a Montessori school, you know that. The Montessori approach for dementia care is based on that. So again, she was working with children with mental disabilities, and

then around 30 years ago, if you've ever had the opportunity to hear him speak, he's really a phenomenal speaker, Dr. Cameron Camp, he is an American research scientist in the field of aging and he adapted the Montessori method to address those needs of individuals who have Alzheimer's or related dementia. And the adaptation seeks to, it's very similar, it seeks to engage the senses, evoke positive emotions, it's stimulation of cognitive, of social, of functional skills.

Now ideally, it is recommended to be performed on a one-on-one basis. However, I think we all know that can pose a significant challenge to a lot of different facilities because you don't always have the staff to client ratio to accomplish that. And sometimes again, you can get volunteers involved or family members, the activities department and such, but again, one-on-one is ideal, but we can also do these in small groups. Research indicates that there's strong positive engagement when you have a small group as well, two to four individuals, again, following these types of principles to achieve therapeutic results. I think that's important for us as OTs because we may not always have the opportunity to have one-on-one treatment and we might be doing some things more on a concurrent or a group basis, so it's good to know that the Montessori approach will work for that.

So what are the benefits to the Montessori approach? And you can see, you can read all of the different references and such here, but there's a common theme here. It's social engagement, it's decreasing agitation in individuals who have dementia, it's enhancing attention, specifically attention to a task. Changing, or not changing, but altering somebody's affect, their emotion, particularly in long-term care. We see decreased quote unquote "problem behaviors" whatever that means, helping to meet the psychological needs of the residents as well, so a lot of really strong positive benefits. Again, and it's across another different settings, so these different settings that are shown here across a number of different settings, so adult day care settings, home care settings, long-term care, residential, et cetera. The activities within the

Montessori approach too have also been shown to provide sensory stimulation, cognitive stimulation, and they allow the expression of social skills, and we'll see what those look like in just a minute. I think this last one is really important, and you can read the, obviously the citation there, but these intervention programs have also had a positive impact on work satisfaction, staff turnover, and within us as staff and nurses, feeling better about the job that we're doing and what we're able to impart to our residents, and when we get to the very end, you'll see a few quotes from staff, specifically from nurses on how this has improved what they're doing in their day-to-day work.

So there's benefits to the residents, definitely benefits to us as well. And this is where the research comes in now with the late stage dementia, so not a lot of studies. And one of the drawbacks of these studies is that the sample sizes are just a little bit smaller than some of the early stage and middle stage dementia types of studies, but the results are essentially the same. They find that participants in the Montessori program exhibited more active engagement in activities, a more pleasurable affect, less anxiety as it was compared to a control group, and these types of studies have been replicated, again, engagement, and all sorts of improved task carryover and improved functional abilities. So what they're seeing is an increase in positive affect, increase in independence in daily living, very specifically eating and simple dressing and grooming types of activities, again, very OT, and a reduction of behaviors, again, specifically for those individuals who have severe dementia and language issues. Through the Montessori types of activities and the approach, even if that person was non-verbal, they were able to communicate wants and needs very much effectively through the activity, so I think that's all very, very positive.

When we look at an overview, there's an emphasis on independence, on freedom within limits, and a respect for that person's development, their psychological, their physical, their social development. And I don't know about you but I've heard, you're in

a community or what have you and an individual who has dementia, they pick up a knife, a steak knife or a very sharp knife or something, "Oh, get that away from them, they can't have that, "they're not safe to do that." They've used a knife their whole life, they've used a knife for 50 or 60 years, and now suddenly, they're not safe? And that's what's really interesting, so that's that respect for that person's development, and if you have an opportunity, they're not embedded within the course, but look up some of the neat videos related to Montessori. I watched one online where there's a group of women, and it wasn't set here in the States, it was overseas somewhere, but they had cooked all their lives and they made this huge pot of soup. They peeled the potatoes, they chopped the potatoes, they chopped the carrots, they did everything they were supposed to do, they stood at the stove and they cooked the meat, and they did with very distant supervision, almost completely independent.

Again, when we allow individuals to do what they've done their whole life, we do see that they're able to carry that over and that's pretty great. When we look at the activities, and we'll review a lot of these principles more and more as we go along, but the activities are simple, they're modifiable and they're practical. So the caregiver, the therapist, whoever it is sets up that activity and it's everyday items, it's not something that is contrived, so you don't need to go purchase something from a catalog. You just go to your closet, "Oh, I have a cereal box, I have silverware, I have," well, whatever you have available to you, it's everyday stuff, and if a task is too easy, you increase the difficulty, and again, isn't that what we as OTs do? We adapt the activity. And completing that activity or that task leads to a sense of accomplishment while reconnecting that person hopefully with part of their personal history, so what do we mean by that? If the person really enjoyed cooking or baking, maybe they're in a safe kitchen environment, and we do just that. If they were a housekeeper or what have you, and we have plain socks that need to be matched and folded or it's towels, maybe it's puzzles or sorting, maybe it's plumbing tubes that need to be put together, somebody was a handyman, so you need to think creatively about what you can pull

together. And what we're learning is that individuals who have dementia can come not only to enjoy the process of participating in something that they used to do, but again, they really come away with that sense of accomplishment that can help improve their quality of life.

I think too, the Montessori program or the Montessori activities align with person-centered care and I don't think it matters where you work in gerontology now, that is the buzzword: Person-centered care, person-centered living, person-directed living, whatever you want to call it because both of these emphasize respect, dignity, independence and can be used with somebody of any age. Now the Montessori activities are more structured. They do require as possible individualized attention, so that's why they say one-on-one is best, but if you're gonna do group, group is fine, it just needs to be a smaller group so that you can still have some of that individualized attention to each person. There are opportunities for interaction, there's sensory, there's cognitive stimulation, and if you think about some of the activities that we see in long-term care traditionally, things like bingo or music or something, you have these huge day rooms or auditoriums with a lot of people, and if you have somebody at those later stages, late-middle or in late stage dementia, it's very difficult for that person to participate, so we do need to look at modifying, making it smaller and providing that structure.

So let's start to go through what we call the basics of the Montessori method. And there are at least 10 that we'll review, the first is using everyday materials, we just talked about this. Now when we talk about materials, they're not designed to be toys or anything, but they're to practice independent living. Things taken from the everyday environment, things that are familiar to that person in terms of sight, in terms of touch, and again, not only will they be able to interact with them and use them in an activity or for purpose of function, but there's also sensory stimulation that goes along with those materials, and they will have the opportunity to reminisce, and maybe it's, again, it's

measuring cups and they talk about how they used to bake, or you'll see in a later slide where I have some, help me, spices, and it says, "What did you use to make with these?" And you smell something and it invokes a memory, so you start to reminisce, so everyday materials. Next is matching interest and skills, and this is a unique aspect of this approach. It's modifying that activity based on not only their cognitive and their physical ability but also their background and their interests.

So when Maria Montessori was working with her students, she always started with what are their capabilities, what are their needs, what are they able to do, what do they like to do? The balancing act centers not on challenging the person, you don't want them to become frustrated and give up, but rather, making this task just a little bit beyond their comfort zone, so they still have the opportunity to improve, and that's exactly what we would do with a person who has dementia. And kind of going along with that, we use their past experiences and preferences in trying to determine what those activities are. Obviously if the person can tell us, we're going to solicit that information, but as we get into those later stages of dementia, that may not be the case, so we may have to go based on what we know. So again, if the person traveled a lot, maybe you do a matching activity with cities in Europe versus cities not in Europe, or they enjoyed geography, you just do something with countries, or if somebody really enjoyed gardening or something, you sort pictures or words into categories like fruits versus vegetables, et cetera.

So you base your activities based on their preferences and what you know, and we'll talk about that on the next slide as well, I think it's the next slide, maybe the next one. You're also going to adapt based on cognitive and their physical status, and that makes perfect sense. We need to tailor it to something that they're actually able to do. If it's something that's past their abilities right now, all that we're gonna do is frustrate them if we push that narrative, if we push that activity. We simplify it as much as necessary, again, isn't this what we do as OTs? We break down that activity into

smaller steps that can be mastered and then sequenced and then put together, and they're then able to do a full activity. And this is that assessment, before I go on to the other parts of the basics, if you will. What's their history, their strengths, their limitations and occupational performance? What's their environment? What contributes to successful engagement, what hinders it? What are their life experiences, their values, their interests, their whole background? And again, is this not the occupational profile that we're probably completing on every single person who comes on to our program? So we're getting this information, and hopefully we're using some tools to do that. And

I'm not gonna say that you have to use one tool over another, but there's a lot of things out there. There's the COPM, there's the Activity Card Sort, there's something like this, the Pleasant Events Schedule, there's the Preferences for Everyday Living, the PELI, the Roles Checklist, the Interest Checklist, I don't think it matters what it is that we use, just use something to try and tap into that. I think I speak for a lot of us when I say it's disheartening when you walk into an OT clinic and everybody's using Thera-Band and they're using the exercise equipment or they're lifting weights when this is what OT is, it's all about doing something that's functional and meaningful and purposeful to that individual. So continuing on the basics of Montessori, matching speed to ability. Again, that's kind of a basic one, so you don't want them to go too quickly if they're not able to do that, bring it down to something that is manageable for them. The next one is the progression, and I believe this may have been a test question. The Montessori activities, again, based on Maria Montessori's work, we are gonna progress them from something very simple to something more complex, from something concrete to then abstract, and go backward if you need to. If you find that the person is not able, they're in a stage of dementia where they can't handle anything abstract, they can't handle something more complex, you bring it back down. You can also, again, this is very OT, adapt and make it harder.

So we just talked about matching pictures of things in different countries, European cities or whatever, so maybe you're matching the pictures, but maybe even before doing that to make it a little more difficult, you add a fine motor component to it and you have the person cut out the pictures and then use those in the activity, or using other fine motor types of things, a screwdriver to help repair a faucet, or help you repair wheelchairs or something. There's a lot of different things that you can do, and the more you can incorporate some of that fine motor function, you're producing items as well as focusing on some other aspect of the task, maybe it's cognitive, maybe it's sensory. The next thing is demonstrating, and again, I think this is really important and this goes hand-in-hand with the next principle. If you're going to demonstrate something to the individual that you want them to perform, whatever that task is, put something in their hands that's related to the task. Just telling them something is probably, it may not be comprehended, depending on the stage of their dementia, but if they have something in their hands, they're gonna start to make that connection. The other piece is that you want to demonstrate step-by-step showing, so it's tell show do, or even just show do, in as few words as possible, minimum vocalization, nice, serene atmosphere, because the more words we use, again, the less that's being comprehended. Less is more in this particular situation, so it can be very confusing to give a lot of verbal directions, so stick with just the demonstration, and again, give them something to manipulate while you're doing that.

Finally, evaluate. Take a look at this session, you'll probably hear this on another slide as well, determine if you were successful. If it was, I tell people all the time, if it was, you just rock on with your bad self, and if it wasn't, go back to the drawing board and figure out what you need to do to change that activity so that that person will be successful, will get something out of it. And again, thinking about the activity requirements, we adapt activities, it's what we do, and we want this to be gross motor, repetitive, familiar motions. You can certainly incorporate some fine motor, again, if the person is able to do that, involving just a few steps that, again, maybe we can link

together, maybe we can't. There needs to be an observable effect on the environment. We don't want to just do something willy-nilly without that person knowing the purpose behind it and the why behind it. And I think sometimes when we do some of the more contrived types of activities, we assume that the person knows, oh, we're trying to gain strength so that we can do XYZ activity, that person doesn't necessarily know that, they need to see that observable effect. It should be noncompetitive and very few rules, and really, to understand that last point about the rules, think about the difference between free play and recreation. We engage in recreation as adults that have a lot of rules, and children don't, and what we want to do is we want structure, but we don't want a lot of rules if that makes sense because we want this to be engaging and we want this to be informative and exploratory to a degree.

So as we continue to talk about adapting activities and what types of activities would be useful, I love this particular slide and I recognize that it is a little on the old side, but it is still 100% pertinent, and it talks about things that we want to consider when adapting activities, and I'm just gonna go through a couple of these that I think really kind of hit home. Attention span is the first one. In the early stages of dementia, a person can attend 20 minutes, give or take, with some verbal cues, one or two verbal cues. Middle stages of dementia, we're looking at five to 20 minutes with intermittent verbal cues. Once we get to that late stage of dementia, they need constant cuing, they may not be able to attend at all. So when that person with late stage dementia is brought to that large day room for a bingo game or music activity, are they really able to attend? Probably not, possibly, but I think probably not. The next one is environmental scanning, and again, this one hits home for me. So early stage of dementia, about 24 inches in front of their eyes, so within the visual field, when we get to the middle stage, we're looking at about 14 inches, and then at the later stages, we're looking less than 14, sometimes six to seven, so really, directly in front of their visual field.

Again, if you're giving them an activity to do and it's clear across the room or it's even across the table they may not be able to see that in order to engage with it. I'm gonna skip through the middle section here because I think we know that as the disease progresses, we do lose a lot of those abilities to really recognize the quality of our work, do some problem solving, some sequencing, et cetera. Direction following is where I'm gonna jump down to. Early stage, simple verbal directions, middle stage, one step verbal, probably no written, and then once we get to those later stages, it's gonna be probably hand-over-hand assist. And then their response time, early stage is slower than normal, when we get to the middle stage, we're at about 15 to 20 seconds, and then when we get to the later stages of response time, it could be significantly longer and for probably each of us has experienced a scenario where you've asked a person with late stage a question or asked them to do something, and it's 60, 90 seconds, several minutes later when that person finally follows through, so we have to recognize that and slow it down a little bit as we start to do some of these activities.

So again, we already said some of this, persons with dementia obviously need that structure and order in their environment, changes can be very, very upsetting, and Maria Montessori said the exact same thing of her students, and so all activities will have some sort of structure and order that will comfort that person and allow their attention to really be focused. When we look at the activities, and we're just kind of following on a theme here, immediate feedback, high probability of success, and a lot of repetition. And the Montessori program also makes use of a number of other types of things that again, as OTs, we're very familiar with. Task breakdown, guided repetition, that progression from simple to complex, et cetera. We're also going to take advantage of that procedural or their non-declarative memory, so the individual who has dementia probably is not going to learn new things necessarily, but we certainly can tap into their procedural memory as well. We'll talk about the external cues in just a minute, you'll see that in some of the templates and the cards and different things that you can put into an activity to get that high probability of success. So the activities

that we're looking at are self-correcting because they are, this is those external cues, they provide the clues to let an individual know that they did it completely and successfully. So for example, maybe it's setting the table, and you'll see a template on this in just a little bit. There's a circle on it for a plate, there's a setting for a place mat and a place where your silverware goes, and if you put that template down, they know exactly where everything goes, if it's on there and it's in the right place, they'll obviously know that.

There's a lot of social participation related to the Montessori types of activities, and one specific one and you'll see them again as we look in some of the photos that are coming up, one very specific one is something called a reading round table, I'm not sure if you've heard of that, but it's a very unique reading discussion activity. They actually take adapted stories, the printed stories, and they adapt them to a person with dementia. It's large print, there's cues to guide people through the story, and then individuals in a small group again take turns reading and then answering questions about the story, so that's kind of nice. Other things, again, we've talked about tailoring it to the individual, a lot is in groups, but it doesn't have to be in groups, and depending on what the activity is, it could be a simple hand massage that's five minutes, it could be laundry sorting that could be 30 to 60 minutes. Group activities typically are about 30 minutes on average. I think it's important that we know that the group activities, everything is integrated into every facet of the resident's daily activities, so it's the majority of their waking hours, not just their time in therapy, but all of the time that they are awake, obviously with the exception of when they might be sleeping or using the restroom or something, it's incorporated into their entire day. With that said, they also have the opportunity to refuse, and/or we can modify it.

So a resident who was sensitive to a lot of different stimuli, instead of participating in a group activity maybe could go for a walk with the person instead or do something a little bit different, or if it's a flower arranging activity, if the person doesn't have the fine

motor ability to arrange the flowers, maybe they can participate by verbally communicating to the leader about how to put the flowers in, which flowers to place them. Again, we're looking at procedural memory here, structured repetition so that an individual can actually perform an activity. So how do you create the activities, what do they look like? Let's continue on that theme. First step, there are three steps, you're gonna question why is this person behaving in a certain way? Are they apathetic, are they melancholic, are they frustrated, are there repetitive behaviors? Why are they behaving in the way that they are, positive or negative? And how could an activity help them? Step two. I'm sorry, I think I have to sneeze, you're gonna create the Montessori activity, so you can see the mnemonic here. Considering the needs, the interests and skills, the abilities of that person. What's going to support their independence? Removing unnecessary markings, removing clutter so that whatever it is that you're working with for this activity is easily seen, it's easily recognizable. Make sure that the activity is error-free, so the focus is on the process of the activity rather than on the outcome.

Provide all of the materials that are attracted to the person, and again, modify that as you need to. Providing templates which we already talked about and environmental cues that helps to support their memory. And then again, evaluate that activity to determine whether or not it used those principles. When you're presenting the activity, and this is important, you present it in a very specific way, so prepare the environment with a choice of at least two activities. You set up the room, remove the distractions, so maybe the therapy gym is not the best place for some of this, and you extend an invitation. "Would you like to come with me and arrange some flowers? "I would really like your help in folding this laundry, "would you be willing to help me?" You extend an activity. You demonstrate it, as we already said, use as few words, and then you suggest that the person try the activity. So you try it and then say, "Here, try it, "let me see how you do." Ensure that it's error-free, make sure that the person is actually enjoying it, offer assistance, modify it, et cetera, and then again, I think this is really

important, you thank them. "Thank you so much for helping me today. "I'm gonna need to do this again tomorrow, "would you be willing to help me again tomorrow?" So thank them and ask them to do it again sometime with you. Remembering that every activity needs to be purposeful, voluntary, failure-proof, socially and age-appropriate, all of those different things, all of those things that we've learned over and over again with quality dementia care. Remember that every participant needs to have an activity that they can successfully handle. And you as the facilitator, you'll sit probably on the dominant side of that individual, if they have one. You need to understand too that sometimes, they won't do the activity how you intended, and that's okay.

If the participant engagement is really strong and they're very involved and they're enjoying themselves, let it go, let it be, there's no right or wrong way to do it particularly if the engagement is good, just let it happen. Maybe you'll come back some other time and try to correct them, but that's not advisable, you want to just kind of let it go. We already talked about demonstration and we're gonna talk about a lot of these different types of activities, so matching and sensory boxes and picture puzzles, et cetera. Generally speaking, the activities will fall into one of these categories, so cognitive skills, and again, are we gonna improve cognition? No, I think we know that, but maybe for some of our individuals who are in those earlier stages of the disease process, discussions about current events, or some brain challenges or something. You can do some simple puzzles like matching words with object, we already talked about identifying landmarks, maybe it's seed packets which we'll see in a second, or having a conversation about an object, so you give that person an object that they would have used in their lifetime, and you can reminisce a little bit about it, those are all cognitive skills.

Then there's life skills, I think this is a lot of where Montessori activities tend to fall, so it's planting seeds, or maybe they did chores that they can help with, maybe they were a handyman, so you can do things involving hand tools like a screwdriver or a wrench.

Maybe it's raking, it's watering the plants, it's working on the car, it's baking, it's folding clothes, you see where I'm going here. Movement is very important. Whether that person is seated or standing, we can incorporate movement, we can incorporate slow, deep breaths. Full range of motion if at all possible, and again, that's gonna be so much better than a rainbow arc so picking an apple from a tree, picking up flowers from a field, placing flowers in a vase, dusting, sanding, sweeping, and again, those could be modified for either seated activity or standing activities.

Sensory, very important, so it could be candles with aromas, it could just be scent that they're smelling and you reminisce about, or you have scent that you match with a picture so that they can put those together and again, have a conversation about it. Maybe it's different types of fruit and they take a bite from each one and then they have to tell you what that fruit is perhaps, or they identify it by textures, so there's a lot of different things that you can do with sensory but I think the important piece is that it's not just visual, it's taste, it's touch, it's sound, it's all of those things. Sound, music, those go hand-in-hand, and music is a really popular and effective way to engage with individuals who have dementia, so listening, identifying, dancing, singing, church hymns are identifiable with a lot of people, patriotic songs, all of that, and I think again that's because the areas of the brain that are impacted by dementia are largely untouched, the music centers are largely untouched. Art, there's a lot of different types of programs out there now that have art programs specifically for individuals who have dementia, so maybe it's a drawing or painting or copying a photo or something like that.

And then finally, socialization. One of the best socialization activities as you know is dining, so maybe it's setting the table, maybe it's serving food, it's talking to and engaging with people who are at a table. When we look at the activities that we would be setting up by stage, early stage of dementia, you can look at the whole task, so maybe it's the whole recipe to bake a cake, or it's potting bulbs for spraying, or it's

making a birthday card. When you get to the middle stage of dementia, you're gonna start looking at the individual steps of that activity, so instead of the full recipe, it's just gonna be whisking the eggs, measuring the flour, rather than potting all the bulbs, it's gonna be just putting the dirt into the pot or something like that. And then those later stages of dementia, it's the sensory piece, so it's not the activity itself, but it's tasting that cake or smelling the cake, or rubbing your fingers, running your fingers through the compost or scrunching the tissue paper for the sound and the feel of that.

So when we look at the activity, it's still the same activity that you have multiple people working on at different stages but each stage is going to be looking at a specific facet of that activity. Again, issues occur of course, you betcha. Participants can get agitated, they can get bored, they can infringe on the space of their peers. If they lose focus, re-establish eye contact, and just ask them, "Hey, do you mind helping me "just a little bit longer? "Give me five more minutes," and see if they'll engage. They may walk out, and that's fine. If they walk out, go with them for a while and then invite them back, and if ultimately, they don't want to come back, that's fine, but we're not gonna restrict that person or allow them to not refuse. If they lose interest, maybe you grab the project or the activity and you work on it a little bit and then hand it back to them, oftentimes that works, and the person will want to get involved again. There is a reality depending on what we're working on that objects can be placed in their mouth, so of course, we want to have some sort of supervision. We talked about sensory, and again, the sky is the limit here. You can do, and you'll see this in my photos here in just a second, a balls box where you have a plastic box or something, different textures, so squishy and plastic and fabric and goop balls and massage stuff, whatever, different things that they can interact with. A cereal box or whatever, it could be rice or it could be uncooked oats or something where somebody can use spoons and cups and other utensils to sift and sort and pour and measure and different things like that. Kinetic sand, very similar, or you could use a rice bin for the same. Seeds, you don't want to go too small, you don't want that person to start putting things in their mouth, but any

kind of seeds like avocados or acorns, pine cones, anything like that, that's very sensory in nature, and obviously food as well, so they can cut food, taste it, feel it, what have you.

My mantra with sensory is design on a dime. You can go out to different catalogs and different places and find a lot of really, really expensive sensory equipment for individuals with dementia, and it's very appropriate in many cases, but some people don't have that amount of money to pay for that, so think about what you have in your natural environment that is sensory in nature, and my guess is that you probably have a lot of stuff that you can pull from. We talk about activity kits, and this might be something that you've heard of, and you'll see them in just a second on one of my photos, but the activity kits tap into one of these five domains of function, and typically what they'll do, it's either a plastic bin or it's an open bin that you put on a shelving unit and the activity is in there, and it's very, very organized and clean. And an individual can just come in, grab the activity, there's a job card on it that tells you what to do, and they can sit down, do the activity, clean it up and put it away, so again, the sky is the limit. So in the cognitive stimulation, it could be poker chips and cards, it could be number tiles, it could be matching.

Life skills, we've already talked about a lot of that, but even things like polishing shoes and stuff that men may have done when they were younger. Fine motor types of things, working with scissors, clipping coupons, sanding wood, gross motor types of things, sweeping, vacuuming, raking, cleaning windows. Sensory stimulation, finding hidden items in the Cheerios or in the rice bin or something. And then even some socialization, filling in the blank expression, so favorite foods, favorite holidays. You can even take an activity and make it social, a social type of activity, just have a big bin of buttons and if somebody is sitting there, you can talk about buttons, "What kind of coat do you think this went on? "What kind of shirt, did you ever sew?" And just have that socialization, that conversation around an activity. The activity group kits are great.

The research shows that they are very, very positive for improving quality of visit, quality of life. 57% of residents had positive results in well-being when caregivers and/or visitors would come in and grab the kit and work with the person engaging in that kit or an activity with that kit versus just sitting there and having a conversation. Let's take a look at some of these activities and what do they actually look like? So here's some different activities. This particular one here, so let me just get my little pointer, so this one right here is the golf ball scoop, and this actually isn't even golf balls, these are just plastic balls. Name the colors, scoop them up with, this is just a regular scoop, you could use an ice cream scoop, what have you, and transfer them from the basket to a muffin tin and then put them back. What that also does is it mirrors that hand-to-mouth pattern if you will for self-feeding, and it's an engaging activity.

We talked about some of the sorting, so in the slide, it says living versus nonliving, so what's living, a cow, a butterfly? What's nonliving, a watch, an ice cream cone, whatever? This one, I sorted the seed packets into vegetables and flowers. Happy versus not happy in facial expressions, different things like that. And then the memory bingo, what that is, it's a very specific activity, so each participant gets playing cards with printed answers to corresponding calling cards. So the calling card has a phrase on it, something like Fred Astaire and Ginger blank, and then they have cards in front of them and they have to play a card when their phrase is called. So it's easier obviously because they have the words in front of them, and once four cards are played or something, the game is over. What's beautiful about it, it's very similar, what's that board, that other game, Cards Against Humanity type of thing where you play a card based on a phrase. And the procedure remains the same every time the game is played, but the content changes, so it is a bit of a exploratory type of activity.

Next, some cognitive stimulation, so again, and maybe it's multicolored measuring spoons and cups that need to be sorted and such, maybe it's cards related to food

groups or favorite holidays or favorite foods, and again, it's up to you what to do. You can count them, you can spell, you can arrange, you can reminisce, there's a lot of different things. You can see what I have here, we have here a template where they match, say this is the idea of the template, they match the animal with the picture and there's another template that I don't have photographed here that has a quote unquote "real animal" shown versus this plastic one, so we're asking them to kind of take that more complex step and match this plastic animal to its real life counterpart. You can see here, they're matching shapes with a template, that's, again, how they know that they've gotten it correctly, and this is probably not ideal, but this is a shelving unit with the different bins on it. It's probably not exactly how I would set it up, this was actually set up at a trade show and this was the shelf that they gave me, so I was kind of stuck with it, but I would probably have it a little bit lower to the ground, a little bit brighter, and probably without those large sides on it, but you can see the bins are just there and available for the person who would want to interact with that activity.

Next, some life skills. Again, the sky is the limit here. You can see we have folding here, "Would you like to set the table?" And there's all of the components for setting the table for somebody who is crocheting. You can have them be meal related, so meal related could be pouring the water from the water pitchers for a lunchtime activity, squeezing oranges to make freshly squeezed orange juice maybe for breakfast, or scooping out potatoes onto a plate or scooping out the beans or something like that, picking, so even just like snapping beans and getting them prepared to cook them. Chopping, yes, they can chop, and they don't have to have a super sharp knife, they can use some other type of knife, they can sort the silverware, again, there's a lot of different things that you can do, and then as we said before, adapt, move, examine, count, rearrange, what have you. Some other examples of activities, these are some of the sensory, and again, it could be a hand massage with scented lotion. The rice bin I will tell you is one of Dr. Camp's favorite activities where you can take a spoon, and I don't have it photographed here, but you could take a spoon and you sort through a

slotted spoon and try to find that treasure in the bin, and it does, it mirrors that hand-to-mouth pattern that is important for self-feeding. So we have an olfactory type of activity here. Here's the different types of balls that you can interact with that we talked about just a little bit ago, even seashells, so this is just a whole thing of seashells that all feel different, they smell different, and you can certainly talk about them. I did put this photo in for you, it is the light tubes and the fiber optics, a lot of what we see when we think about sensory.

Again, I have no strong opinions one way or the other, but I think sometimes you can get a lot of very visually appealing things just in your own environment without relying on some of the other things, even this isn't super bright, but you can see there's definitely visual appeal to a lot of these different things. So these are the templates that we talked about, so here's a template for, oops, there we go, for dining, there's a template for the steps on brushing your teeth. I had one person who never remembered to take out their dentures, and we actually put a template of their dentures and their denture cup on their night table as a reminder to always take out your dentures and put them in the cup, and it became, once they did it so many times using the template, it became a habit. So when you can use those templates, again, that person knows exactly where those items go, they know when they'll be successful.

This is a job board, and you can put all of these on one board, you can put them as you saw in the previous pictures with the items in the bins, and you can see that it follows the Montessori principles. "Would you like to help make centerpieces for lunch? "Would you like to help bring friends to lunch? "Would you like to help this, would you like to do this?" It's that asking them to be engaged in the activity, and again, they can choose what it is that they would want to work on. Intergenerational activities. The Montessori approach has also been really useful to help individuals who have dementia to serve as mentors to young children, so by presenting activities as a

teaching device. So how to fold clothes, how to use tools, how to sand down wood, how to pronounce letters, how to count, how to add, how to, I don't know, what else? Write in cursive, whatever. This type of programming has been really positive to get engagement not only in the children, but also in the adults, and has been very helpful in adult centers as well as long-term care facilities. And I think the beauty of these types of activities is I'm talking about this elderly person, this senior teaching a younger generation, it goes both ways because I think in a lot of our communities now, we do see different types of computers where they can Skype or they can do different activities, so the kids coming in and teaching them how to use social media, how to use a computer, how to do some of those things is very helpful as well, and in doing things side-by-side, you can see the gentleman in the far bottom corner painting, again, a very good sensory type of activity, a very good visual activity that you could do hand-in-hand with kids.

On the far right, you have the people walking in the woods, again, not appropriate for everybody, but a great activity that's gonna tap into that sensory type of activity plus good gross motor movement. So let's go through a case study, let's look at this in total. In this case study, we have M. M is an 85 year old woman. She has moderate stage dementia residing in a long-term care community. She often refused to take part in the activities that were offered, preferring to stay in her room alone most of the time, and this placed her at risk for becoming socially isolated because she just didn't have the social interaction. The activity that was chosen for her following the Montessori types of principles was arranging flowers, and that activity required her to take silk flowers and arrange them in a basket with floral foam which held them in place when they were arranged. It used fine motor skills, obviously pincer grip strength, pressing them against the resistance of the foam, along with allowing that client to make choices, so which flowers to use, where to place them, and so on and so forth. M used to do some gardening, she was an avid gardener, so it was surmised that she might actually like this activity and find it meaningful. So the facility staff member in charge of

the activities program was the facilitator, and on the first day of the activity that it was introduced, she walked in, she introduced herself and said, "Would you like to arrange some flowers with her?" And M replied and said, "No." She had no interest and refused to participate, and we've all heard that before, right? Not to be discouraged, the staff member said, "Well okay, well would it be all right "if I worked on this arrangement here in your room? "It is really crowded out there in the activities area "and I just need a quiet place to work." M replied, "Sure, go ahead, you can stay." So the staff member began working on the arrangement independently and periodically would ask M which flower to use in the arrangement, where it should be placed. Sometimes M would reply, sometimes she didn't care, sometimes she gave a suggestion, and every time she gave a suggestion, the staff member thanked M for her time, thanked her for her input, and when the activity was done, she said, "Thank you, I appreciate you "allowing me to use your room, maybe I'll see you tomorrow." And the following day, staff member came back to M's room with a flower arranging activity again, asked if she would like to participate, and again, M refused. The staff member said, "Okay, do you mind again if I work here today?" M agreed. This time, the staff member tried to involve M even more by presenting two flower choices to her and saying, "Which one do you think I should use?"

At first, she hesitated but eventually she made her choice, and that continued for the remainder of the session with the staff member asking M which flowers to use or how to arrange them. And throughout the session, M started to reminisce about her own garden, her favorite flower and she started to smile, but she still never manipulated the flowers herself. Near the end of the session, she actually instructed the staff member to place a flower on the right side of the basket, and the staff member purposefully placed it on the left side of the basket. M leaned forward, moved the flower back to the right side, and this was the first time she actually manipulated them. At the end of the activity, she said again, "Thank you so much. "Would you like to arrange flowers with me again sometime?" To which M said, "As long as you follow my directions, I will."

The following day, the person walked in and said, "Would you like to arrange flowers?" And immediately M sat up and said, "Yes, I would love to. "When are we gonna start working with them?" And this is a real case study, by the way.

So what are the Montessori principles here? Providing meaningful activity based on remaining skills, so fine motor, color discrimination, using familiar activities, beginning with that invitation, demonstrating how to complete the activity, breaking it down into the steps and then providing that closure, "Thank you for participating, can I come back tomorrow? "Would you like to do it again sometime?" And I think the key takeaway here is this case study highlights several different important points. First, it illustrates that no matter what the level of impairment, somebody can and should be provided with opportunities to engage in meaningful activity. And it also highlights that some people are gonna need to be eased into an activity gradually by doing maybe just portions or just sitting on the fringe or just giving some input verbally before they actually get into the activity, and by gradually doing that, they realize that they actually can participate. The staff member again went in and she refused and she said, "Well, do you mind if I work here instead?" And what that did is that sparked interest and it builds rapport. And then by the third day, again, that person was much more comfortable with the staff member, she was sitting up in anticipation of the activity. So they made very small decisions to increase involvement over time.

So just as a review, 'cause I know we just, we hit a lot of principles here, let's just go back over, and I believe these were some of your test questions, just what are these Montessori activities? They are not complicated, they are not contrived, they are simple, they are everyday materials, everyday activities. They don't always have to be in a group, they can be one-on-one, they can be in a small group, either one, whenever works for you. They do simplify the task, they provide immediate feedback, they promote supervision and learning. They can be performed by you in therapy, by nursing, by activities, anybody who would want to do this. It is necessary for the

person to understand the purpose of the activity, so they need, it needs to be purposeful, it needs to be meaningful. Remember that everybody, no matter what their level of impairment can be provided with opportunities to engage in an activity. Remember that the activity should follow the stage of dementia, so early stage is the whole activity, middle stage, it's gonna be the individual steps, and then late stage, it's more of the sensory. It should have very few steps and an observable effect on the environment.

Again, we can link some of those steps together, but they should be one or two steps. Remember, you always want to demonstrate the activity using a step-by-step guide and using as few words as possible. Remember if they engage in the activity but not exactly how you wanted them to, let it go. If the engagement is strong, let it go, you want them to be enjoying themselves, not necessarily completing your to-do list. If they lose interest in an activity, work on it yourself, and then hand it back to them and invite them to continue, and again, if they still refuse, let them, that's okay, maybe offer them a different type of activity or a different choice. And remember too that these activities are supposed to be self-correcting because they provide cues or clues to the person to know if they have completed it successfully, so again, that's very important. So a lot of different principles, but I think they're all principles I hope that are pretty inherent to us as OTs.

So I promised you a few quotes, and these are direct quotes, "I can see," and these are from staff members, I will tell you these come from activities personnel. "I can see they are much happier after the group. "I thought they were slow and irresponsive," that's their words, not mine, "Now I know I was wrong. "I would not have thought to give them that activity before. "Now I know that if we give them a chance, "they can achieve something after all. "Staff can give these residents something to do "where they feel useful and they're enjoying their time "as opposed to, you know, "maybe looking for negative attention." And I love this one, these come from nurses. "You can

either spend the time responding to those behaviors "or you can implement the little two second activity "and let them work on it for half an hour. "It really isn't time-consuming, "where do you want to spend your time?" I love that quote. And again, it came directly from a nurse in a Montessori community who said, "You know what? "I'm answering questions, 'What time is it, "'when's lunch, when's lunch, when's my daughter visiting?' "Over and over and over again. "Instead, let me go grab one of these activities "off of the shelf," and she calls it the little two second activity, "But let me go grab one of these things and demonstrate it "and show," and this is engaging to this person, it is meaningful, and it's purposeful, so I love that quote. And again, it doesn't have to be super time-consuming, 'cause I think that's the pushback that we oftentimes get from staff. "Seeing it work and seeing the residents get engaged "and smiling and taking part in an activity, "especially residents when they don't think "that they're capable of really doing much of anything, "it's a bit of a shocker." And finally, "Sometimes families get lost when they come in "as to how to have a quality visit with their loved one "when, 'Mom doesn't even recognize me.' "So this gives them a tool also to have that visit "in a meaningful manner." So they're working on something together and possibly doing something that is something that they can reminisce about.

So with that, we are at the end, so I'm gonna say thank you, and we do have a couple of minutes, I believe, for questions. And there are a couple in queue. And I'm gonna apologize, I am unable to read this full question. Would you guys mind dumping that into the chat for me, please? Thank you, "Would the Montessori-based approach "fall under maintenance therapy?" I think that's a great question. It might, it might not. I think if you establishing the activity, I'm gonna say activity as in diversional activities, but as you are establishing a program, I think that is absolutely skilled type of intervention because I do believe that it takes the skill of a therapist to figure out some of this stuff, what is the best activity, how to adapt it, how to modify it? So I would, I think it could fall in maintenance down the road, but I think at least initially, it is

absolutely skilled. Great question. Yes, I can, yes, when used with the long-term care population. So yes, I'd be happy to review those highlights at the end to summarize. What I was basically saying is, and this is basically taken directly from your post test, if you're following along, the activities are not contrived, they're not complicated, they are simple. They can be performed one-on-one or group. They have immediate feedback. Anyone can do them, therapy activities, nursing. They do need to understand the purpose of the activity. Anyone regardless of their impairment level for sure can be provided an activity that is meaningful.

Make sure you focus on the stage of dementia and what types of activities they can do whether, so for mid-stage, it would be the focus of the individual steps, later stage is more on the sensory side of it. Yes, it should have as few steps as possible. It should be observable, the outcome, it should be observable in the environment. When you are presenting an activity, yes, you want to demonstrate it, and you want to show them and talk about it while they're holding something from that activity to make it meaningful. If engagement is good and they're not doing exactly what you want them to, that's okay, let it happen, we want that engagement, that's wonderful. And then the final two things, if they lose interest that's okay, maybe you work on it a little bit, hand it back to them, or offer them another activity, and make sure that they are self-correcting so that they know how to perform the activity. "Is there a special certification?" That's a great question, thank you for the person who asked that. Yes, you can in fact become certified in Montessori-based dementia programming. You don't have to though to use a lot of these principles. I work with a number of communities where management is certified, or maybe one or two people in the activities department is certified, but as we went through these principles, I think you can see, they're good OT principles, it's what we should probably be doing anyway.

Yes, you can be certified, but no, it's not absolutely required, unless you want to call yourselves a Montessori-based clinic or a Montessori-based community, then yes, you

would have to be certified. "How would you recommend educating other staff members "on these activities?" That is a great question again. I think what I would do personally is tell show do, use some of the handouts that are in here, some of the tips on those, on the activities and how to set it up, so tell them, show them a variety of activities using some of those principles, have them watch you do a session with somebody, with one of your residents before you turn them over to activities or nursing, and then do that training, so I would probably do it in that direction. Okay, I don't see anything else in the question queue, so yeah, tell show do, it works for me, it works all the time. So if you do have additional questions, I'm gonna turn it back over to Fawn here in just a second, my email is up on the screen, do not hesitate to reach out to me via email, I generally get that pretty quickly to folks and would be happy to answer questions that you have. And I thank you very much for being here today.

- [Fawn] Thank you, Dr. Weissberg, for a great presentation. I hope everyone learned quite a bit here today, I hope you can take it back to your practice. I hope everyone also has a great rest of the day and you join us again on Continued and occupationaltherapy.com. Thanks, everyone.