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## Choosing Wisely: Conquering Habit to Achieve Excellence Recorded October 31, 2019

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- [Fawn] Today's course is Choosing Wisely: Conquering Habit to Achieve Excellence. Our presenter today is that there is Dr. Teresa Fair-Field. She graduated from Pacific University in Forest Grove, Oregon with a Bachelor of Science in 1993 and from Chatham University with the Post-Professional Doctorate in Occupational Therapy in 2016. She's worked through the lifespan including early intervention in pediatrics, adult neuro, older health, and end-of-life care. She works full time in academic and clinical education. Her primary role is on the Select Rehabilitation education team. Welcome back, Teresa, so glad to have you.

- [Teresa] Thank you so much, I'm glad to be back again. Looking at the poll results, it seems that it's fairly evenly divided. A handful of you have heard the Choosing Wisely components at some OT event before, either the conference, an OT conference or AOTA presentation and about half of you have never seen it before today. We will be reviewing what it is as well as talking about some new content as well so there should be something for everybody. Let's go over our learning outcomes. Today, our primary learning outcomes are to identify the five things that are targeted for de-implementation and the rationale behind the removal from OT practice. We'll also be describing the role of habit in the selection of treatment tools and activities and also discuss effective methods of inserting new learning and evidence into daily practice patterns.

So to begin with, let's talk about the Choosing Wisely initiative, a little background about how it came into being, and how we are impacted. So Choosing Wisely is an initiative that was developed by the ABIM, the American Board of Internal Medicine and it's in its seventh year now. It was seeded in the work of Dr. Howard Brody who wrote a perspectives column in the New England Journal of Medicine. And this was back in 2010 and he was addressing that the year prior in 2009, healthcare industry stakeholders such as medical device manufacturers, insurance companies, pharmaceutical agencies, et cetera, were beginning to pledge efforts towards changing

their practices to buttress health care reform, things like reducing waste or increasing their efficiency, et cetera. And Dr. Brody pointed out his observation that the medical professions and the medical professionals did not respond in kind and weren't, at that time, making any efforts towards changing their own practice patterns to support that initiative.

So he proposed in what is now that seminal column that each medical society should appoint what he called a Blue Ribbon Study Panel to report on that specialty's top five list which would consist of tests or treatment services, et cetera, that, quote, have been shown by the currently available evidence not to provide any meaningful benefit. Knowing that list-making alone would be ineffective in dissemination and practice change. He also called for each specialty society to develop an implementation plan to educate the practitioners and its purview. He suggest in that report that while industries could probably find 20 to 50 such items that the top five would be a, quote, at least a down payment towards change. We have over 75 participating specialty associations and these are occurring throughout medicine as well as allied health professions, we see ourselves, our PT partners along with practices throughout the lifespan, pediatrics, geriatrics, end-of-life care nursing, even post-acute. We see specialty society partners throughout the organizations where OT is situated and in each case, the specialty society has identified those five things that occur in their practice areas that they've identified that contribute to either systemic waste or possible increased risk, and using Dr. Brody's original criteria that given the available evidence practices that do not produce any meaningful benefit.

We'll spend a moment now looking at the contribution of occupational therapy and this is what we can consider our down payment towards eliminating unnecessary or wasteful practices or those which have been shown by current available evidence to not provide our patients with the meaningful benefit to which we intend. Since these are the cornerstone of occupational therapy's contribution to the Choosing Wisely

initiative, there are a lot of places to read more about how and why these five items were selected. This course doesn't really go into the background of their selection. The resources are available on the AOT website as well as the Choosing Wisely app which we'll take a look at in a moment. I'm gonna briefly address them here and some critical studies that impact the selection of those. Just in case this is your first time seeing the content, let's review occupational therapy's five things. Number one, do not provide intervention activities that are non-purposeful and particularly cited are those things such as cones, pegs, the shoulder arc, arm bikes, et cetera. And the reason behind this selection is because purposeful activity is one of the core values of occupational therapy, so it's what distinguishes us from any other provider on the team. Purposeful activities, moreover, are inherently motivating to the individual performing them. They promote engagement, attention, endurance as well as pain tolerance. Studies have shown towards what the individual identifies as a meaningful reward, whereas non-purposeful activities fail to motivate the individual to improve their own health.

Number two, don't provide sensory based interventions to individual children or youth without documented assessment results of either difficulties processing or integrating sensory information. And this is based on the recognition that assessments should be what drives individual sensory interventions. Any blanket provision of sensory tools maybe ineffective or harmful to those individuals that do have some of those difficulties with processing. It also diminishes the value of client-centered customized intervention. So if we see things widely being distributed across populations without occupational therapy input, we should be concerned about that behavior. And this includes things such as the provision of Ayres Sensory Integration techniques, weighted vests, the provision of sensory diets, a variety of listening programs that are currently available, et cetera. Number three, don't use physical agent modalities, PAMs without providing purposeful and occupation-based intervention activities. Standalone physical agent modalities are not identified as occupational therapy. OT provides direct application of modalities to occupation with a paired functional component of

treatment and that's what distinguishes occupational therapy practice from other providers of those physical agent modalities. Number four, don't use pulleys for individuals with a hemiplegic shoulder. Pulleys are considered too aggressive and this is one of the recommendations that does have the potential to cause harm to the delicate structures of the shoulder complex that are affected by stroke, for example. Also, see item number one. Pulleys are not functional and purposeful towards the individual performing them. And number five, our fifth recommendation is regarding cognitive interventions. Don't provide cognitive-based interventions, for example, pencil-and-paper tasks, tabletop tasks, or cognitive training software that don't have direct application to occupational performance.

Again, this also goes back to number one. Those activities may not be purposeful to the individual. Cognitive rehabilitation should focus on increasing the individual's awareness of any deficit areas, developing strategies to ameliorate those deficits, supporting their functional task skills based on what the person is involved with in their life, providing environmental or task modification towards successful completion as well as appropriate use of assistive technology for any of those cognitive-based tasks. In a nutshell, we're looking at activities that are meaningful, purposeful, value-added, client-centered occupations. So we identify that modalities are available to a lot of people. We don't have license on a particular modality necessarily but what makes it occupational therapy is this value-added client-centered occupation. So that's what distinguishes us from other team partners as being valuable participants in healthcare. Here, again, the association has provided both online tools as well as mobile apps. This is making access to the material easy and directly at the point of service.

It's important to mention that the Choosing Wisely campaign is targeted to both clinical practitioners as well as the consuming public. This has caused some controversy in clinical circles but we see that consumer-driven education is actually a highly effective method of inducing change and promoting clinical habits that are increasingly

patient-centered. As awareness of the campaign builds, we can expect some participation on the part of consumers to drive the selection of their own treatment approaches since they are now armed with the information of what does not comprise best practice. In doing so, it provides us with a compelling reason to drive change in our own clinics, departments, and clinical behavior. What you're seeing here is a free app which is downloadable on both Android and Apple mobile platforms and I've shown screenshots, my own screenshots of the app view for education and awareness purposes only.

To divert just a moment while you consider this approach, the World Health Organization has promoted and prioritized what's identified as the Patient Empowerment Movement and that began with the model of hand hygiene which is often promoted via consumer-driven education. That's a two-pronged approach that attempts to increase hand washing and sanitization habits in healthcare workers as well as empowering the consumers themselves to ask, "Have you washed your hands?", if it is not been directly observed. The effects of that effort have been studied worldwide with very interesting results that vary somewhat significantly by culture. If the movement interests you further, there are several studies on the reception of this initiative specific to hand hygiene. I included here not as a diversion but as a matter of background while we look at the design of consumer-driven access to the information in the Choosing Wisely initiative. Here we see, relative to hand washing that in one study, a sample of a 108 parents or adult patients, we had response rates in that study of about 72% of parents of hospitalized children were quite comfortable telling their providers to wash their hands not surprisingly since parents are often accustomed to prompting hand washing and hand hygiene habits, slightly less in adult patients, 65% of adult patients reported feeling comfortable prompting a provider to wash their hands. Interestingly, these studies also looked at practitioners' habits particularly physicians, residents as well as attending physicians found that over 65% of residents agreed with a patient empowerment and patient-driven hand hygiene education,

whereas somewhat significantly fewer population of attending physicians thought it so. But these are things that we see as emerging where we're providing more information to the patients to drive and control their own care. Let's return back to the app. Again, keeping in mind that these recommendations are available to our consumers as well as ourselves. In both the consumer and clinician views, viewers are sent through a short set of filtering menus to narrow the results due to the many participating societies each having five recommendations of de-implementation. Filters can be applied by the topic area, by the recommending society as you can see, age, setting, or type of service. As we see at the top of the app with no filter selected or in this case, all ages of recommendations, we see 590 individual recommendations were found.

On this at next slide, we see that if we select the geriatric age filter, right here with our age selection of geriatric, the recommendations are now narrowed to 382. Now, I think it's a valuable to pause a moment and realize that while recommendations were made for care across the lifespan, 65% which is 382 out of that 590 total, 65% of the treatment practices selected for de-implementation across all professional societies are occurring in geriatric care. Now, this points to a deep need to innovate our treatment approach in the settings of older adults and across all disciplines. Now importantly, this is not because there's a lack of evidence on the issues of aging, there is no shortage of research being done on elder populations in any field. There is evidence available. What is missing is operational practices to innovate the delivery of care for our elders, to inject the evidence we already have into the care environment where we work. If AOTA is selected, the occupational therapy recommendations, you can quickly find the five things that we just discussed listed here along with the release date of the information. In this case, June 4th of 2018.

Now, next to us, we see the APTA page which showcases the value of the app and one-stop shopping the recommendations of our care partners as well. Now, it's important to mention that since information dissemination is the primary objective of

the campaign, these tools are free app downloads available to all therapists and the consumer. Membership in the society or an academic database is not required, all of these tools are open access. What is in our way of delivering innovative and evidence-based practice care? We are very accustomed to assessing our client's performance patterns but we typically don't apply those same analytic skills to ourselves in our own practice patterns of delivering occupational therapy, and yet our profession has been so bold as to say, "Don't do these things. "Remove these activities from your toolkit." They are either ineffective, less effective, or actually have the potential to do harm. As Dr. Brody described in that initial call to arms, they do not provide any meaningful benefit.

Looking at the reference list behind the five things, I've included references on the end of our presentation today, many of them, it's clear that the things that were selected are not new news. These five things are not big reveals. The research came out, some of it in 1986, 1996, and yet 20 and 37 years later, our professional association or our clients are actively prompting us to question these techniques and why is that? For some of that time, we certainly may not have known about the evidence but after 20 or 30 years, it could more likely be because we have a habit-driven practice. So recognizing that, we can attempt to combat it in order to provide the best occupational therapy practice that we intend to provide. We need to apply occupational therapy to ourselves in the way we provide occupational therapy. We need to begin to assess our own performance patterns. If we are specifically looking at performance patterns, here's the AOTA practice framework description of performance patterns. Those habits, routines, roles, and rituals used in the process of engaging in occupations or activities and we ourselves as a profession identify that those can either support or hinder performance so we are going to specifically look at, not just the practice of engaging in occupations or activities, but we're going to look at the habits, routines, roles, and rituals in our process of delivering occupational therapy treatment and we're going to focus on those which may hinder our performance. It is being hindered by our



habits of treatment delivery as well as we will see stagnant context and static unchanging environments that contribute to the brain's habits cycle.

Let's take a look at how. Here's a quote by Henry James back in the 1892 that says, "All our life, so far as it has definite form, is but a mass of habits, practical, emotional, and intellectual, systematically organized for our weal or are woe, and bearing us irresistibly toward our destiny whatever the latter may be." To describe what a habit is depends on whom you ask. A behaviorist would call it an automated action. A cue is present, a routine is run, a reward is received, but we tend to think of ourselves as more than just mice at the feed bar so we need a deeper definition. In our case, we're going to describe habit as learned sequences triggered by the environment to produce behavior which is largely outside of our conscious awareness. And another great citation that I located in the habit science is that habits are required gradually as people repeatedly respond in a recurring context and as we're going to discuss in today's presentation, context in environment are critically related to the habits that we perform.

So where is a habit formed? The short answer is it's formed in the basal ganglia, in the deep brain. As the quotation on the last slide indicated, it's occurring largely outside of our conscious awareness. Our conscious awareness, we don't tend to have knowledge and awareness of what is happening in our basal ganglia so it's not a surprise that our best intentions and new learning which exists out here in the area of the cerebral cortex are not reaching us at the point we are selecting treatment activities.

Understanding this, we will not be surprised to learn later on in the presentation that there's a strong motor and sensory component to habit formation which makes sense neurologically. And, of course, habits, as we've already discussed, can both support and hinder performance. We may see habit based learning, for example, is preserved in individuals with a traumatic brain injury or dementia which impact the function of the cerebral cortex but the individual may have preserved the deeper structures that

support our autonomic nervous system as well as the automaticity that we bring to our day. And in those cases, our patients or clients maybe relying on habit to complete their functional tasks. We actually rely on habit to complete our functional day. We beat the same path to our morning coffee, to get dressed, to pack our lunch, to drive to work, and our basal ganglia also contribute to those routines. So habit goes a long way towards making us more efficient because they remove from conscious thought those actions that we can perform quite automatically which frees up cognitive space for those great ideas we tend to have when we're going through our routine tasks.

Very few of us get our ideas by sitting down and thinking about things. If we did, then more of us would be philosophers instead of occupational therapists. We are much more apt to process through activity by doing, but not if the activity requires conscious thought. If we're learning the steps to a country line dance, for example, we're not going to have much bandwidth left for our best new ideas. So our brains rely on habit to drive efficiency. If we are multi-tasking at anything, we can assume that our performance is habit-based because it has to be. You can't be utilizing your cognitive resources on more than one cognitively demanding thing at a time, so if you're multitasking, you are relying on habit to complete at least one or more of those activities. If you question this, think about how it would go if you were learning that new country line dance at the same time as you were writing up a clinical note. We also know that the brain likes to chunk and categorize items for efficiency. Habits are no different and we can easily identify where individual habits begin to link together to form a routine, a morning routine, a bedtime routine, a getting ready for work routine, and yes, delivering a treatment routine. And we tend to launch these routines in similar ways each day to make ourselves more efficient to reduce our cognitive load, to allow us to multitask, to write a clinical note at the same time we're delivering treatment. However, we tend to get stuck in the same treatment delivery system, and then have difficulty incorporating new learning even if we want to.

So why doesn't new learning create new habits? Because when habits are formed to control over the behavior gradually shifts away from being guided by our intentions to being automatically triggered by cues in the environment. Once formed, habits are difficult to break with goal-oriented intentions. When we sit in a course live or watch a course online even in this course, we may have great ideas about how to implement new learning into our delivery of treatment but habit science says that unless we modify the triggers in our environment, it will stay in the realm of a good idea or a good intention. Some things we may do such as write a note or send ourselves an email can be helpful but unless we interrupt the habits we already have, those notes and emails tend to be forgotten or neglected at the point of service delivery. This is something I noticed in my own practice and began to explore more deeply after attending a course that used both new techniques and treatment items that I hadn't incorporated before. I've gone so far as planning to deliver the new approach and customizing it for an existing client on my caseload. I collected the items I would need in advance and I was feeling pretty eager to provide my new approach on Monday.

Now, if you would ask me, I would've resisted the idea that my OT performance patterns were habit-driven. I didn't feel as though I was delivering an occupational therapy treatment routinely, and yet, there I was in front of my client noticing that I was unprepared and without the items that I had so thoughtfully assembled. How did I get here? How did this happen? I've done all the things. I remember standing there thinking, how did I not pull this off? And why is it so hard to inject new learning in our OT practice? We can talk about new learning, we can tell a peer about the awesome course we took or the new technique we learned, we are even pretty good at stating what the evidence is but what causes us at the point of service delivery to reach for things we know are not recommended, not functional, and probably not meaningful to our client or even more basically, just not what we intended to do? Why is there such a discrepancy between the functionally based, personally meaningful OT we think we're providing and the treatment activities we routinely reach for. Self-awareness is the fruit

of reflection so if we can look at our own practice reflectively, we can start to identify the habitual aspect present in our selection of treatment modalities. In this quote, "Reflecting on our own practice habits, "we can begin to set goals and contingencies "that better align with our implementation intentions." This quote uses the term implementation intentions which, I think, is a powerful statement because we all have implementation intentions but what we sometimes struggle with is intentional implementation.

What resources do we have to engage in a reflective practice? There's a lot of focus on this in the industry currently in several health-related industries. Is there evidence in the profession, in the OT profession around reflective practice habits? Turns out there is but given the nature of personal reflection, there is no one prescribed way to do it. Some people prefer reflection to be a private act done individually while others seek mentorship, questioning others, and have a primarily outward method of processing as a means of reflection. But in truth, a reflective process includes both components of looking in as well as components of looking out and around. Most models identify that regardless of how we process, we need to begin by describing an event. And as critically as possible, begin to use a buzzword here, unpack the event and separate the objective from the subjective, to distinguish what is or what happened from our feelings, both hopes and disappointments about what is or what happened. Canadian occupational therapists, Katrina Bannigan and Alis Moores proposed a beautifully simple three-stage process called "What, so what, and now what". And in this model, they further identified the so what stage to process as an opportunity to marry the evidence-based literature with our practice reflection, and they proposed this is three breakout steps.

A critical analysis of the event or in this case, a critical analysis of your own practice followed by seeking and reviewing knowledge that is identifying what the literature is and how and in what ways your individual practice does or does not reflect that,

followed by ideas and sharing. Bannigan and Moores suggest that this is a more structured sharing process rather than a, quote, chat with a friend, but in a formal learning context such as a team meeting, mentorship discussion, et cetera. We begin to do that by understanding that for the reasons we've discussed, integrating new learning is hard. If we have difficulty integrating new learning from a course, from a conference from an article, from an evidence-based practice finding, from these five steps, it may be because integrating new learning is hard. Our brains can more easily store it or categorize it or compare it to what is already known, it has a much harder time using it to change our practice patterns, to develop a new practice behavior. Cohn, Coster and Kramer stated in 2014 that implementation of evidence-based practice requires not only mastery of specific skills but also the development of self-directed habits to help sustain routine use of evidence throughout a professional's career, but how do we do that when we struggle to integrate new learning and can we start by identifying that we do indeed struggle to integrate new learning?

Another is when we noticed we are selecting the same treatment activity over multiple persons or multiple sessions or several times of day. And if we can identify that we do that, then we are delivering a treatment out of habit and not intention? Or can we identify and reflect that we are spending more time on pre-functional activities than functional activities. This is a quote from Glen Gillen's 2013 Eleanor Clarke Slagle Lecture, well in advance of his work with AOTA on the Choosing Wisely campaign. Amongst other roles Dr. Gillen is the Choosing Wisely champion and authors many of the resources that are available on AOTA about the campaign and his role really began with looking at what a great number of us are spending more time on pre-functional activities than functional ones. But this reflection takes a fair amount of vulnerability. University of Houston professor researcher, Brené Brown, said in her 2011 TED Talk which is widely viewed that, "Vulnerability is the birthplace of innovation, "creativity, and change", and it's certainly is the next step in identifying our own habit-driven practice. In fact, vulnerability might actually be co-occurring with step one in order for

our self-reflection to produce any useful results. We need to have the vulnerability to recognize that, at least some of the time or in some circumstances, we are inclined towards a habit-driven practice.

So perhaps with self-reflection and a healthy dose of vulnerability, we can come to a place where we can begin to identify the triggers that tend to activate our habitual response. What is it the causes us to go automatic? Only realizing maybe somewhere in the middle of our treatment that we forgot to implement the new activity or technique we just learned about last night or over the weekend or the functional components we meant to include in our practice today. At what point do we get hijacked by our basal ganglia, and then, deliver a habit-based intervention instead? The triggers that are identified by our researchers are listed here, physical locations, other people, internal states, and preceding actions in a sequence. Now, it isn't explicitly stated in the literature but as an OT, I'd like to point out the part of the internal states that trigger a habit-based response is the sensory input, those sights and smells and motor actions which are also processed by the basal ganglia that causes to behave in habitual ways. Also, the preceding actions in a sequence refer not just to the order of the day but the time of day, the temporal component to which we attach behaviors that act as triggers for the habit sequences that we call routines.

Let's break these down in context of where we actually perform our OT practice. Up to 45% of habitual behavior tends to be repeated in the same physical location everyday. Now, if we reflect back to ourselves, we often have our new treatment ideas, those things we just called our implementation intentions when we are away from the workplace, on our commute home, even as we're in the midst of other habitual routines. Getting ready for the day, for example, we might have a treatment idea occur to us that we'd like to implement later that same morning that suddenly flees our mind once we arrived at work. And this is the operation of a physical location trigger. We open the supply closet door and automatically grab what were accustomed to

grabbing, or we arrived at the bedside or the treatment gym and go a little autopilot. The deep brain says, "I know exactly what to do here." Brandy Brown and Stephanie Bachman's Choosing Wisely handout on the AOTA website recommends using available resources from other locations within a facility. Our physical environment causes us to behave in habitual ways, so one way of waking up ourselves to new treatment ideas is to expand what we think of as the treatment space.

To help us get and think outside of the box, we would benefit from moving ourselves outside of the box as well. Other people can trigger a habit loop. It can be the presence of a teammate or maybe even the presence of the client themselves which sends us into selecting the same treatment that we did yesterday or the day before. It could also be the presence of a common diagnosis. We could have many treatment innovations for the various diagnoses we see in a day but maybe, we identified in that self-reflection step that we treat one specific diagnosis in the same standard way which doesn't account for individual meaning or variation in the treatment. In some sense, we may actually be immune to habit formation with those diagnosis we rarely see, our clinical reasoning is on point because our brain recognizes that a situation is unfamiliar but then very habituated in our delivery for diagnosis we see more commonly. Our physical cognitive and psychosocial health strongly correlate to our formation of habitual behavior. Our cited authors say that stress, distraction, and the depletion of willpower will reduce our capacity to make a decision about how to act which increases our reliance on habits. Fatigue, workplace demands, productivity, the state of our team relationships, the typical workday stressors, we do well when we can. In other words, our own self-care is an a important component of our OT practice pattern for not only our mental health, our work-life balance and the secondary beneficial effects on our well-being but also imperative to the delivery of best practice. Another way habitual behavior tends to override good intentions is by the actions that came before, the preceding items in a sequence. That could be as simple as entering the treatment room after lunch or taking the same route to the patient room, this is

where the environment, the temporal component and the internal state may all come together which tell the brain it can relatively check out because we know what comes next, we can take it from here. The preceding action in that sequence is called a precursor. Identifying the precursor is important to break the habit chain or to insert a new practice or strategy.

Sleepwalking research, for example, tells us that you can actually be asleep and still make a sandwich. The motor plan gets you to the kitchen, the sights, sounds, and smells of the open refrigerator prompt you what to grab, and those preceding actions will support you in preparing a fairly tasty but not very creative sandwich. So we can have every intention of making humus and cucumber, we can justify the benefits of humus and cucumber. Hummus and cucumber will help us meet our therapeutic goals but somehow standing in front of our patient, we look down and we grabbed ham and cheese. And the next thing we know, we're explaining to our patient how ham and cheese will help them get closer to their goal of humus and cucumber. Now, I'm stretching the analogy a bit but it does provide you a mnemonic device to be open to noticing this in your own practice and that's exactly how it occurred to me. Good intentions are not enough to get you there. Good intentions are not enough to put the right tools and activities in your hands. We actually need to interrupt our old habit sequences in order to provide intentional implementation.

So looking at the next step, inserting intentional habits, how do we stay present in the moment of activity selection when our stressed and tired brain would much prefer to just grab something reliable and go? This is where we possibly need to do our hardest work to interrupt our automatic selves, and because of that, our solutions are going to need to be as personal and as creative as our insights. We can only provide effective interruptions to our practice habits if we've been able to identify what triggers us individually. All of the strategies that you use will need to be customized to your unique clinical practice. So unfortunately, there's no checklist that says, "Do these five things



in order to revitalize your practice." If you can self-identify that you zone out in front of the supply cabinet, start there. If you realize that you put certain clients on the machines with certain diagnoses, start there. If you realize that you have a harder time delivering purposeful activity for the first person after lunch, start there. Notice when you are more apt to struggle. Equally notice when you are more likely to do well. Even an incremental change to a habit can catapult a new practice pattern. The important thing to realize is that whatever you'll put in its place is actually just going to become a different habit.

And again, we rely on our practice habits to maximize our efficiency as practitioners. We just need a reset on what those habits are. We need to begin to dismantle old habit structures and insert new and intentional ones. We're not going to be able to change the role of our basal ganglia but we can influence the practice habits that it chooses. We can make selecting meaningful, purposeful, value-added, client-centered occupation tasks our next habit. As Charles Duhigg identifies in his book, "The Power of Habit: Why We Do What We Do "in Life and Business", the initial cue and the final reward are usually the same. we are just inserting a new behavior or a new routine in between, that is our plan. So what might a new intentional habit look like? As practitioners, we need to look at innovative ways to bring out clients back to function. Purposeful occupation and the tools of life should be replacing our reliance on specialized equipment that is only found in the clinic. We can expect that we need to exert more cognitive effort to build new and different practice habits. Starting with the Choosing Wisely recommendations, there's universal support for specific equipment removal and retirement such as overhead pulleys, cones, pegs, et cetera. Those items that were mentioned in item in the Choosing Wisely recommendation number one. Other recommendations are less specific and will require your clinical reasoning. Number five recommends that cognitive activities such as paper-and-pencil tasks that don't have direct application to occupational performance should also be de-implemented. A checkbook balancing activity kit that was directly applicable to

banking in 1995 is no longer relevant given how banking is performed today. The cognitive task needs to be re-engineered with a modern lens as does just about anything involving a simulation worksheet. However, there's a valid point that says, "My 85-year-old client isn't on the internet "and still uses as a paper checkbook."

So cognitive reasoning may indicate that sitting down with a pencil and a calculator and a paper check register is still meaningful and relevant to that individual. In that case, it might be helpful to red box it or red tag it, something that will flag you as the user to say, "Wait, stop, think", before you grab this item. Is it appropriate for this individual? Something that will alert our habitual brain that we're grabbing it because it's purposeful and useful, not just because it's comfortable. Hand-in-hand with removal, we have replacement or substitution. There is now a space in your clinic, your cabinet, your files, your bookshelf that is open to be filled. We need to be intentional with how we replace or substitute an item because as we've discussed, we will likely form habitual behaviors around the new tools and equipment that we insert as well. There's a buzzword in the field to hold an occupation drive to have people bring in low cost items from home or second-hand from kitchens, bedrooms, bathrooms, patios, garages, garden sheds, to build occupation or activity boxes using functional tools and items for use in daily living, though we need to consider more than just our own homes and living spaces as we do. Are the items purposeful? Are they culturally relevant to the individuals in our care? Does it meet the clinical need? Is it evidence-based? Can it be used in more than one way? Was my client engaged in its choice? And to keep our environments fresh, to keep our brains thinking about new ways of delivering treatment, we need to do these drives not just once but as a regular practice.

Refreshing our occupation boxes needs to happen routinely enough so as to become a team habit. An intentional habit replacement might be one that requires a client choice, for example. You could also build a self-imposed habit to insert a new tool, technique, or evidence-based approach modifying the activity to meet your client's needs on a

Try-Day Friday. You could even gamify your activity selection with a card sort, a colored die, a spinner that prompts you to take your treatment activity to a different part of the facility or the home or the treatment area depending on where the card, die, or spinner lands. With these intentional practice habits, you build in the ability to keep your cortical thought and clinical judgment engaged and active in the selection of each activity, partnering with your client to provide meaningful treatment selections. A word about signs. Our brain increases resources to detect novelty in the environment and decreases attention to sameness. So today's sign in, today's sign on the wall is tomorrow's wallpaper.

So just like our brain stops registering in routine and familiar smells like our own home or body smell, we stop seeing post-it notes, signs and picture alerts that occur in our daily environments. So the visual or cognitive barriers that we develop need to circumvent that tendency. We need to use our knowledge of our own neurology to develop systems that will cause us to actually stop and think. That's why our red box might work better than a tag. If you have to go to when actual red box to get out a treatment tool, it inserts a built-in visual cue to stop and pause for reflection. Is this the best choice for the client, something that requires that conscious and intentional effort? Some of us may need to focus on aspects of time associations or to change the sequence with which we do things. If you notice that you struggle with after lunch or the end of the day or go automatic on your way to a particular building or wing, consider building a practice of traveling a different route, make a new habit of disrupting the sequence in which you travel the facility or provide treatment each day. Not all of our practices will allow this but if yours does, it could be a powerful maneuver. If you're able to change the sequence of each day, you will have to actively strategize as the day unfolds allowing you the opportunity to insert new intentional practices as your day progresses. If you're not able to change the sequence of your day and you have set schedules and appointments, you will need to be more creative. Maybe it will work for you to plan ahead a half day collecting new tools and resources

for a set chunk of time. However, if in your self-reflection, you see that you do really well with the first half of the day, then consider a practice of reverse planning by strategizing your morning caseload on your commute home and your afternoon caseload once you arrive at the office. The important part in your self-reflection is to identify precursors to your habitual behavior and to insert new more supported behaviors that makes engaging your clinical reasoning the new habit. Number five is to incentivize.

Here's the visual model of the cycle of habit. In steps one and two, we discussed the need for self-reflection and vulnerability to even crack the surface of our practice habits. But the cracks of habit change is the cycle of the trigger so we identified several sources to look in step three, then we discuss the insertion of intentional practice habits as a new routine in step four but it would be incomplete if we neglected to discuss the reward that lies at the finish line of every habit or routine. We commonly think of rewards as positive, we earn something special at the end of the finish line but it's much more complicated than that. Sometimes rewards are much more subtle and might require just as much self-reflection and vulnerability. When we deliver familiar techniques or put someone on a treatment machine or an exercise regime or give an activity that we can call a modality, sometimes our reward is feeling competent, looking professional, or looking good. Sometimes if we look at our behavior more critically, do we do it because it feels more professional? Are we concerned that we won't look skilled if we're folding clothes with a patient instead of giving them a, quote, modality? So we may actually need to change our definition of what looking good, competent, and professional means to us.

The Choosing Wisely recommendations makes it possible to do that. We need to start owning that folding clothes is a modality and if it is the means by which our client will regain health and function, it is absolutely skilled. A one-size-fits-all sensory tool, activity, or exercise should not be the means of rehabilitation that we are known for. If

we're being pressured by our supervisors about productivity or documentation, then we need to acknowledge that our habit of putting a client on a machine or giving them a series of sets and reps may be rewarding us by increasing our efficiency and allowing us to multitask. The proposal here isn't to breakdown your efficiency as a practitioner, it is to propose building a new activity mindset that is purposeful, client-centered, value-added occupation, and to practice it so often that it's delivery becomes the most efficient as well as the best possible practice. And that won't be done by breaking down the system all at once. A new routine is built one habit and one client at a time. In closing, while this is not a wellness-focused course, we've established the importance of self-care and its impact on our ability to provide relevant and intentional OT treatment. We simply cannot combat a habit-driven practice with an empty tank. We are often experts at identifying the supportive and hindering habits in our clients but being human are not the best at turning the lens on ourselves, even equipped with those same tools. So while the habit science is fresh in our minds, we're gonna take a quick look at some self-care habits that significantly impact our ability to manage our internal state during the work day, making us more vulnerable to a habit-driven practice and effecting our capacity to make intentional decisions.

That list includes ways in which we tend not to take care of ourselves, sleep hygiene, hydration and toileting during the day, our personal fitness, our methods of managing stress. Any number of these can be broken down very specifically if we insert that same level of self-reflection on our habits. Just taking a look at sleep hygiene which we already know, we can break it down to a few individual habits, something like activating a blue light blocker two hours before bed, going bed 15 minutes earlier on one night, 15 minutes earlier than that on the second, 15 minutes earlier than that and so forth until you're going to bed an hour earlier each night, something like charging your phone at least 50 feet away from the bed or turning your thermostat down the 65 in the room where you sleep. These things are specific sleep hygiene habits that may improve our readiness for intention-based practice the next day. So let's run through a

quick review. Our steps to implementation of any new practice pattern begins with reflection and vulnerability, identifying those personal triggers that we associate, inserting intentional habits, incentivizing ourselves with a new incentive and also examining our own self-care. So to wrap up our discussion, habits can either support or hinder performance. It's important to recognize that some OT practice habits are important for yours and others' safety. We're primarily discussing that activity selection process today. It's meant to provide a platform for your personal insight and professional development and while the information presented here applies to a range of habits and you can use it to look at other habits in your life, the scope of this course is the development of practice patterns that approve the adoption of evidence-based and client-centered treatment delivery.

Circling back to Dr. Brody's original poll for practice reform, he provided us this quote, "Always do right, this will gratify some people "and astonish the rest", from Mark Twain. My contact information if you have further questions. Thank you for staying on with me today. Also, the resources and references for today's course. I appreciate your attendance. You're welcome to email me with questions on the address shown and thank you very much.

- [Fawn] Thank you Dr. Fair-Field for a great talk today. I hope everyone has a great rest of the day. You join us again on Continued and occupationaltherapy.com. Thanks everyone.